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# KENTUCKY ECONOMY
# Review & Perspective

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# KCEA Review and Forecast

by Charles W. Hultman*

The lower turning point of the U.S. business cycle—the trough of the recession—has been identified by the National Bureau of Economic Research as occurring in November of 1982. The Bureau has responsibility for dating business cycles based on its assessment of a number of indices of aggregate economic activity, several of which reached a lower turning point in November; these included the index of industrial production, the number of employees in nonfarm establishments, and the insured unemployment rate (inverted). Since that time most national indicators have reflected a favorable trend and the economy appears to be on the way toward slow but certain economic recovery.

The November cyclical trough at the national level also appears to apply to Kentucky although only a relatively few economic series are available for comparative purposes. In any event, certain key seasonally adjusted monthly series for Kentucky do indicate cyclical lows during one of the last two months of 1982; these include total nonagricultural wage and salary employment and both the total and insured unemployment rates (inverted).

*Recent developments.* Of central importance for analytical purposes are the responsiveness of the Kentucky economy to national developments in recent months and expectations for the next several quarters. At the national level, using seasonally adjusted data, real Gross National Product (GNP), after declining 1.9 percent during 1982, increased at an annual rate of 2.6 percent during the first quarter of 1983 and a very substantial 9.7 percent during the second quarter. The GNP growth was prompted by a significant increase in consumer spending for automobiles and other durable equipment as well as in house construction. Inventory expansion also contributed to general economic recovery. The employment picture, however, has improved more slowly. The civilian unemployment rate, which peaked at 10.8 percent during the fourth quarter of 1982, declined to 10.3 percent and 10.0 percent during the first and second quarters of 1983, respectively.

Although Kentucky data for the past three quarters are more limited in coverage, there is evidence that the state economy has lagged behind national growth. At the national level, the recovery in housing commenced in late 1981, as reflected both in terms of new permits and housing starts. In Kentucky, residential construction declined more sharply in the late 1970s and early 1980s than in the nation; evidence from construction employment and house construction permits suggests a somewhat later upturn in residential housing production in Kentucky.

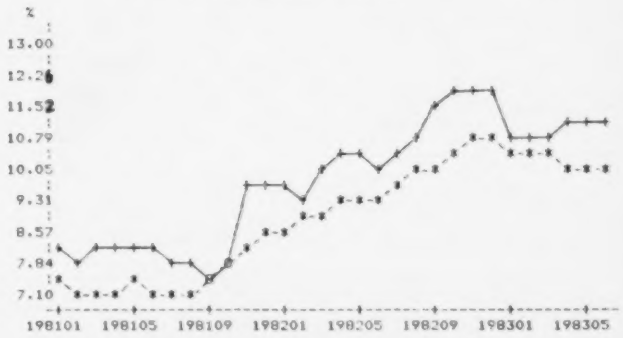
Another reflection of the Kentucky situation pertains to the total civilian labor force, which was almost 2 percent lower at the end of the second quarter of 1983 than the equivalent figure for 1982. Although employment in many sectors at the end of the second quarter of 1983 was improved over the first quarter of 1983, it was still below the comparable quarters in 1982. Kentucky's unemployment rate also suggests that recovery in the state has not matched the national economic growth (see Figure 1). Both the

*(continued on page 6)*

FIGURE I

COMPARISON OF US AND KENTUCKY UNEMPLOYMENT RATES, SEASONALLY ADJ.
( BASED UPON CIVILIAN LABOR FORCE )

LEGEND: SYMBOL FOR U.S. UNEMPLOYMENT RATE : *
SYMBOL FOR KENTUCKY UNEMPLOYMENT RATE : +




SOURCE : BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR & KENTUCKY CABINET FOR HUMAN RESOURCES. DATA HAVE BEEN RETRIEVED AND PLOTTED WITH PROGRAM DTP OF THE KENTUCKY ECONOMIC INFORMATION SYSTEM (KEIS). KENTUCKY DATA WERE SEASONALLY ADJUSTED BY USE OF PROGRAM X - 11 , AND ARE STORED IN THE KEIS.

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Our apologies to regular readers of *Kentucky Economy: Review & Pespective* for the delay in the appearance of this issue. A combination of factors stymied our best efforts to produce it according to schedule. One positive result however, is that all data published herein have been revised at least once by the relevant source agencies. A comparison of the revised figures with the preliminary data generally reported by the media, gives ample evidence of the dilemmas regularly faced by economists. In addition, readers will note that several of the authors in this issue use comparable data to analyze aspects of the Kentucky economy; nevertheless they formulate, present, and conclude their analyses in an original manner. To a considerable extent the divergences are in degree and not in kind, giving healthy evidence of the absence of certainty in the field of economic analysis.

* * *

At its meeting this fall, the Kentucky Economic Association presented Dr. Charles W. Hultman, Chairman of the Kentucky Council of Economic Advisors, Associate Dean for Research and Extension, and Professor of Economics, College of Business and Economics, University of Kentucky, with its annual Economist of the Year Award. We join in congratulating Dr. Hultman upon receipt of this recognition of his contributions to an understanding of the Kentucky economy.

* * *

Revised estimates of annual disaggregated Kentucky personal income, 1977-1981, and comparable statistics for 1982, have recently been issued by the source agency, the Bureau of Economic Analysis of the U.S. Department of Commerce, and are accessible through the Kentucky Economic Information System (KEIS).

Users of the county database of the KEIS, the CBANK, will be happy to know that Roy Sigafus, KCEA analyst/programmer, has been creating ways to make access to CBANK data more "user-friendly." Persons on the KECNET system whose CJS userid has been authorized to access any of the KEIS EXECS, can take advantage of the new CBANK EXEC by typing in:

```
.cbank info
```

anytime they are logged on the CJS. A similar "user-friendly" mechanism to access CBANK data will be installed on the state government version of the KEIS soon. For further information about any aspect of this development, please call Roy Sigafus, 606-257-7675.

* * *

Frances Ross, KCEA Data Analyst, represented the Center for Applied Economic Research, and hence the staff of the KCEA, at the industry/university research symposium, "Research: A Partnership" held at the University of Kentucky on September 27, 1983. Ms. Ross also spoke on the KEIS, and particularly on the coal-industry data available within that resource, at the Workshop Meeting of the Coal Information Network, October 11, 1983, at Morehead State University.

The office of the KCEA staff is scheduled to be moved later this fall to the Mathews Building at the University of Kentucky. Please keep this in mind when trying to contact us during November or December. Details will follow in the next issue.

—moa—

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This publication provides current information concerning the Kentucky economy. It is a forum for the publication of short expository articles, analyses of some aspect of the Kentucky economy, forecasts of the Kentucky economy, and tables of selected data chosen as indicators of developments in the Kentucky and national economies. The publication also sometimes includes information about enhancements to the Kentucky Economic Information System (KEIS) and articles dealing with information systems in general.

Articles submitted for publication should be sent to the Editor at the address given above. All submissions will be reviewed independently by persons recognized as knowledgeable in the specific subject discussed. However, the ultimate responsibility for content rests with the author.

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# Another Look at Equity vs Adequacy in Kentucky Taxation

by Don M. Soule*

*Some Problems of Equity and Adequacy in Kentucky's State-Local Taxation*, published in February 1970, examined Kentucky tax problems from the point of view of a lower income state.[1] That study examined the conflict between: (a) the desire to relieve lower income families of tax burdens and (b) the inability of a lower income state to provide adequate governmental services if too large a portion of its population is given tax relief. In order to provide needed governmental services, Kentucky had legislated a 3 percent sales tax in 1960 and raised the rate to 5 percent in 1968. But by 1970, the state had begun to experience improved economic conditions, and proposals were being aired to make downward adjustments in various taxes. Economic conditions continued to improve in Kentucky until about 1978, and many modifications were made in the state's tax system during that period of rising economic conditions and expectations.[2]

Since about 1978, however, the Kentucky economy has declined relative to national averages; in addition, both Kentucky and the nation have suffered two recessions in the early 1980s.[3] Kentucky's personal income per capita increased from 78 percent of the national average in 1970 to approximately 83 percent in the period 1974-77, but declined to an average of slightly above 80 percent in the period 1980-83.[4] The net result, therefore, is that Kentucky has lost some of its previous economic gains and is again finding it difficult to finance governmental services.

This article reexamines the equity vs adequacy problem by summarizing the main points of the 1970 study, relating those points to the tax system changes of the 1970 decade, and briefly listing Kentucky's tax options.

### Main Points of the 1970 Study

1. Regressivity in the distribution of state-local government tax burdens was decribed as a normal condition that existed almost without exception among the fifty states. (By regression is meant that dollars of tax burden, expressed as percentages of household income, are larger for lower income than for higher income households.) A more elaborate justification of regression was based upon observations that state-local government expenditures were for goods and services that generally resembled necessities rather than luxuries, and that household income-expenditure studies show that expenditures for necessities generally are a higher percentage of income the smaller the household's income. The final point was that, in order to raise a particular amount of tax revenue per household, on the average, lower income states must use higher tax rates or use a larger number of tax types because taxable values are lower, on average, per household.

The net result of the discussion of tax burden regression was the conclusion that the granting of tax relief to lower income households is especially difficult to finance in a lower income state. Such a state not only has lower average levels of taxable values per household, but also is likely to have either, or both, a larger-than-average percentage of lower income households or a smaller-than-average percentage of higher valued taxpayer units (households with higher income or businesses with large taxable values).

2. Kentucky's state-local tax system was found to have a less regressive distribution of burdens than the average for the fifty states.[5] A regressive distribution of tax burdens is commonly interpreted as placing a too-heavy tax burden on lower income households. Therefore, Kentucky's favorable (less regressive) position among the states in distribution of state-local tax burdens was suggested as possibly indicating that Kentucky was already granting a greater-than-national-average degree of tax relief to lower income households.

3. Additonal tax relief to lower income households, if such were desired, could most efficiently be given in a manner to exclude households whose incomes placed them outside the lower income definition. Two tax relief measures being discussed at that time were the homestead exemption (partial property tax exemption for older homeowners) and the exemption of food and prescription drugs from the sales tax. In both cases, these exemptions would give tax relief to both lower and higher income households. Alternate methods were suggested in the study whereby tax relief could be incorporated into the system of individual income taxation (credits, refunds, and direct payments). With any of these suggestions, tax relief would be given only to lower income households and according to the degree of income inadequacy. These methods could apply to both the property and the sales taxes.

4. Additional tax revenue, if needed, could be collected from a general tightening of the tax system by raising too-low rates and eliminating unnecessary exemptions. Specifically discussed were: (a) the very low rate of tax on sales of cigarettes, (b) the low tax rates on alcoholic beverages (combined with artifically high "fair-trade" prices), (c) the deduction of federal income tax before computing taxable income for the Kentucky income taxes, and (d) the low level of state and local property taxation in Kentucky relative to the fifty state average. (Because the coal industry boom had not yet occurred, specific suggestions were not made for coal taxation although some aspects were discussed.) Kentucky could raise additional revenue from adjustments in these various areas of taxation, with the additional revenue used to raise the level of services or to

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TABLE 1

MAJOR TAX LEGISLATION IN KENTUCKY, 1970 DECADE

| Year | Legislation | Description |
|---|---|---|
| 1970 | H.B. 442 | Implemented farmland preferential assessment program |
| 1972 | H.B. 162 | Implemented the property tax homestead exemption |
| | H.B. 337 | Exempted "grocery store" food and prescription drugs from sales taxation |
| | H.B. 337 | Increased the *effective* rate of the corporate income tax |
| | H.B. 337 | Enacted the coal severance tax |
| 1974 | S.B. 179 | Exempted pollution control facilities from most state and local taxes |
| 1976 | H.B. 172 | Exempted repair and replacement parts on farm machinery from the sales tax |
| | H.B. 677 | Increased the coal severance tax |
| 1978 | H.B. 12 | Exempted certain purchases by farmers from the sales tax |
| 1979 | H.B. 43 | Exempted residential utility bills from the sales tax |
| | H.B. 44 | Limited state property tax revenue growth from real property to an annual rate of 4 percent, unless approved by the voters |

**Note:** As part of the modifications in the state-to-local school aid (Minimum Foundation) program, H.B. 4 (1976) reduced local school property tax rates by 30 cents (per $100 of assessed value), raised the state General Fund property tax rate by 30 cents, and increased to 100 percent the state's share of the cost of the minimum guaranteed level of school expenditures. While these changes had little immediate effect on total (state plus local) property tax rates, the statistical record showed a substantial increase in state property tax revenue in fiscal year 1978. This possibly influenced the legislature in making downward tax adjustments in the 1979 special session.

SOURCE: Kentucky Department of Revenue, *Annual Report*, 1970-79, various issues.

provide tax relief in a manner that excluded households defined as not having low income.

### Tax Changes in the 1970 Decade

Table 1 summarizes, by date of adoption, the several tax changes of the 1970 decade. These changes are also summarized below according to tax types:

A. Property taxation.
   1. Preferential valuation of farm land (1970)
   2. Homestead exemption (1972)
   3. House Bill 44 to reduce the relative importance of property taxation (1979)

B. Sales taxation.
   1. Exemption of groceries and prescription drugs (1972)
   2. Exemption of various business purchases (1974, 76, 78)
   3. Exemption of residential energy utilities (1979)

C. Coal taxation. Severance tax adopted (1972); rate increased (1976)

D. Corporation income taxation. Disallowed deduction of federal income tax but reduced tax rates (1972). This resulted in a slightly higher yield.

Viewing these tax changes together with those of the 1960 decade, three phases can be identified. First, the major increase in reliance on sales taxation during the 1960s reflected Kentucky's poor economic situation in that decade. Second, the retreat during the 1970s from high dependence on sales taxation, plus reductions in property taxation, were financed from revenue produced by a booming coal industry and the coal severance tax (1972 and 1976). Third, additional sales and property tax reductions (1976-79) were financed from the relatively more abundant tax revenue provided by a much improved Kentucky economy, although the 1979 reductions probably were enacted before it was recognized that Kentucky's economic improvement had subsided. In the relatively depressed early 1980s, therefore, Kentucky has a tax system that was modified to suit a period of improved economic conditions and rising expectations. If the tax changes of the 1970 decade could be reconsidered, it would be instructive to evaluate those changes in terms of problems created for the 1980s. The main problems concern the degree to which the tax bases were reduced, and the degree to which instability of revenue yield has been increased, because of the tax change choices.

The two major sales tax exemptions (groceries and prescription drugs, and residential energy utilities) exempt these purchases for households of all income levels and therefore are more costly in revenue yield reduction than if the tax relief were only for lower income households. Much the same is true of two of the property tax changes (partial exemption of homesteads, and preferential valuation of farmland). An alternate method for giving tax relief would be to reduce tax burdens only of households whose incomes are sufficiently low to justify tax relief and to tailor tax relief according to their degrees of income inadequacy. Such tax relief measures could be incorporated into the individual income tax system, using credits and refunds for households who file returns and direct payments for other households. This alternate method has the advantage of not reducing the tax bases for sales and property taxation but instead of applying tax rates to broadly defined sales and property tax bases. The amount of revenue produced can easily be changed by altering tax rates; and if the broad tax bases cause excessive tax burdens for particular taxpayers or groups, some of the revenue can be used to finance tax relief, via refunds, without eroding the tax bases.

Instability of revenue yield can refer to the year-to-year fluctuations caused by the normal ups and downs of economic activity (the business cycle) and also to longer-run economic fluctuations such as those characteristic of

the coal industry. The revenue increases following adoption of the coal severance tax in 1972, and rate increase in 1976, were to a large extent used to finance the revenue-reducing effects of the sales tax exemptions. Placing increased reliance on tax revenue from the coal industry caused the Kentucky tax system to become more unstable in both of the two meanings described above.

The coal industry is notorious for suffering periodic booms and slumps. Major changes in coal production can result from governmental regulation of mining and use of coal, price and quantity changes among major energy sources, or strikes. But greater revenue instability resulted also because the increased coal tax revenue was used to finance instability-increasing modifications of the sales tax. The sales tax exemptions of groceries, prescription drugs, and residential energy utilities have the effect of causing the sales tax to be less regressive in burden distribution and, therefore, less stable in yield over periods of fluctuating individual income levels. When incomes fall, households tend to maintain food expenditures while reducing their spending for less necessary items, and vice-versa when incomes rise. The same is true for residential energy purchases. Consequently, yield of the Kentucky sales tax varies widely over the business cycle because the more stable parts of consumer expenditures are exempted and only the less stable parts are taxed.

## A Broad Look at Kentucky's Tax Options

What could be done to increase the level of state-local tax revenue produced by the Kentucky economy—assuming, for the sake of discussion, that a revenue increase is desired? Looking broadly at the question, without attempting to explain specifics, two options can be identified.

The present state-local tax system in Kentucky is the result of many changes over the years and could reasonably be assumed presently to be what the public desires. Additional revenue could best be raised, therefore, by merely increasing the tax rates applied to the existing bases of all or most tax types. Rates could be increased when additional tax revenue is needed and reduced when less is needed. These could be fractional changes, if necessary. Because computation of tax amounts is performed either by persons well-trained in such work or, in the case of non-experts, by using tax tables that are prepared by specialists, changing tax rates by fractional amounts should present few problems. There are two main advantages to across-the-board tax *rate* changes, instead of tax *base* changes. First, rate changes do not pit one taxpayer group against another. Second, rate changes can be made as frequently as necessary because they are much less complicated and disruptive than base changes.

A second but less simple tax-increase option is to make corrections for particular tax types if a consensus of opinion regards some tax rates to be too low or some exclusions, exemptions, deductions, or credits to be unjustified. (Insofar as some of the tax changes of the 1970 decade had the purpose of encouraging the state's economic development, in general or as regards particular industries, the subject of tax revision would best be viewed as including more than the equity and adequacy issues.) If total revenue yield is still inadequate after making selective rate and base corrections, all tax rates could be raised as described in the first tax option. Some reformers might advocate repeal of some or all of the exemptions awarded in the 1970 decade, as described in Table 1. Other reformers might suggest tax rate increases for the cigarette, liquor, and motor vehicle fuel and license taxes. Still other reformers might suggest repeal of House Bill 44 or allow larger annual adjustments than the present 4 percent.[6] Individual income tax simplification and revision have been studied recently, and the Brown Administration presented a very good first proposal in 1982. If modified to overcome reasonable objections (mainly regarding itemized deductions) and if made part of an overall tax-increase program, the proposal might well be irresistable because of its excellent solution of the complexity problem.

### Notes

[1]Don M. Soule and Stephen E. Lile, *Some Problems of Equity and Adequacy in Kentucky's State-Local Taxation* (Lexington, Ky.: Center for the Study of State and Local Government Economics, Office of Development Services and Business Research, College of Business and Economics, University of Kentucky), February 1970.

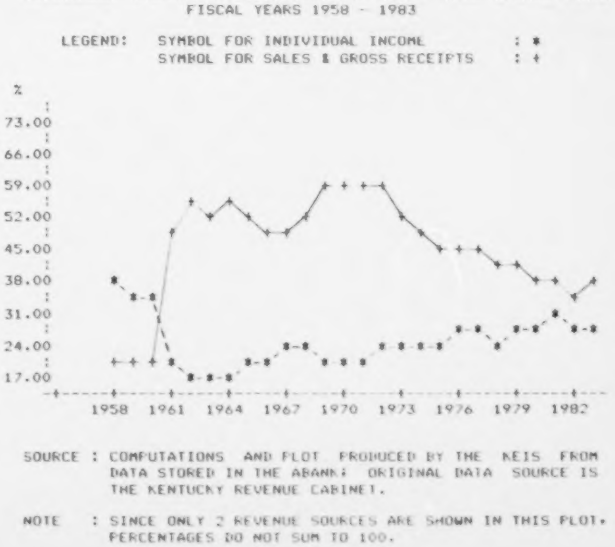
[2]Stephen E. Lile, "The Effect of Tax Revision on Revenue Adequacy in Kentucky," *Kentucky Economy: Review & Perspective*, Vol. 5, No. 2, June 1981, pp. 8-10.

[3]Kentucky economic changes in the period since 1970 are discussed in Don M. Soule, "The Changing Kentucky Economy: 1970 to 1980," *Council of Economic Advisors Annual Report—1982*, pp. 37-62 and also in articles in the December 1982 and June 1983 issues of *Kentucky Economy: Review & Perspective*.

[4]Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce, August 1983. See also the table on page 16 of this issue of *Review & Perspective*.

[5]These findings were based on Stephen E. Lile and Don M. Soule, "Interstate Differences in Family Tax Burdens," *National Tax Journal*, Vol. 22, No. 4, December 1969, pp. 433-45.

[6]See also Stephen E. Lile, "What Are Kentucky's Tax Policy Options?" *Kentucky Economy: Review & Perspective*, Vol. 4, No. 4, December 1981, pp. 6-9, 14.


INDIVIDUAL INCOME AND SALES TAXES AS %S OF TOTAL GENERAL FUND
FISCAL YEARS 1958 - 1983
LEGEND: SYMBOL FOR INDIVIDUAL INCOME : *
SYMBOL FOR SALES & GROSS RECEIPTS : +
%
73.00
66.00
59.00
52.00
45.00
38.00
31.00
24.00
17.00
1958 1961 1964 1967 1970 1973 1976 1979 1982
SOURCE : COMPUTATIONS AND PLOT PRODUCED BY THE KEIS FROM DATA STORED IN THE ABANK; ORIGINAL DATA SOURCE IS THE KENTUCKY REVENUE CABINET.
NOTE : SINCE ONLY 2 REVENUE SOURCES ARE SHOWN IN THIS PLOT, PERCENTAGES DO NOT SUM TO 100.

*(continued from page 1)*

seasonally *unadjusted* total and insured unemployment rates in Kentucky have declined since the beginning of 1983. However, the seasonally *adjusted* monthly unemployment rate for Kentucky's civilian labor force actually increased slightly during the first 6 months of 1983—from 10.59 percent in January to about 11.18 percent in June. The seasonally adjusted insured unemployment rate declined slightly over the same period—from 5.75 percent in January to 5.18 percent in June—but these rates can be affected by eligibility provisions of the unemployment insurance law and may not be as closely related to current economic conditions as the total unemployment rate.

In general, the available data for Kentucky appear to suggest that the upturn in economic activity coincided with the beginning of national economic recovery in late 1982. At both levels residential construction, one of the most depressed activities in the past recession, has commenced recovery even to the extent of preceding the general business recovery. Yet, general recovery in Kentucky appears to be lagging behind that of the nation if adjusted monthly unemployment rates are any indication of actual developments.

*Projected developments.* The outlook for continued national economic recovery appears promising. The Composite Index of 12 Leading Indicators increased in July for the eleventh straight month, indicating that recovery is likely to be sustained. Data Resources, Inc. (DRI), in figures released in September of 1983, projected real GNP would rise by 3.2 percent and 5.0 percent in 1983 and 1984, respectively. The unemployment rate would remain at 9.6 percent in 1983 but decline to 8.2 percent in 1984. The Consumer Price Index (CPI) would increase by only 3.2 percent in 1983 and 4.8 percent in 1984. Labor productivity, which lagged for several years, has started to improve and is projected to continue advancing through 1983 and 1984. In general, strength would continue to be reflected in residential fixed investment (housing), new car sales and other consumer spending; nonresidential fixed investment is expected to recover more slowly. Exports are expected to lag through 1983 and improve only slightly in 1984.

There is continued concern over the size of the federal deficit, which is projected by DRI to rise from $183 billion in 1983 to $192 billion in 1984 and $205 billion in 1985. Although tax revenues will increase with economic expansion, government spending commitments are expected to rise more rapidly, thus contributing to an even larger deficit.

The Commonwealth will generally benefit from national expansion, but not all sectors will share equally. Kentucky's farm sector has been hit particularly hard by a wet spring followed by summer drought conditions. Generally, farm output in the 1983 crop season is well below that of 1982. Burley tobacco, soybean and corn yields are expected to be unusually low within the state. Kentucky's coal production in 1983 has been at least 10 percent below that of the comparable period in 1982; a slow recovery is expected in this sector.

Firms and industries that have experienced declining export sales during the past several months cannot anticipate immediate improvement. The U.S. dollar remains strong in world markets; but this means it is costly in terms of other currencies which in turn serves to retard the flow of U.S. shipments to foreign markets. In addition, many of the foreign trading partners of the U.S., especially the industrial countries, are just beginning to experience economic recovery and are not yet strong markets for U.S. exports.

Conditions in other sectors look more favorable in Kentucky. Mortgage rates are projected to remain almost unchanged for the next few years. Nationally, housing starts are expected to increase from 1.059 million in 1982 to 1.689 million in 1983 and 1.731 million in 1984. Given the sharp decline in Kentucky housing starts in 1981 and the significant long term population growth projected for the state, residential construction recovery in Kentucky should at least equal that of the nation in relative terms. It should also support recovery in related industries, such as construction equipment and consumer durable equipment, which are important industries in Kentucky. The increase in projected sales of U.S. produced automobiles, from 5.8 million in 1982 to 7.0 million in 1983 and 8.1 million in 1984, will contribute to automobile and automobile-related production in Kentucky.

In conclusion, although one of the most severe economic recessions of the post-World War II period seems to have ended, this does not mean prosperity is at hand. Rather, output expansion in the industries most severely affected in recent years will gradually promote growth in related sectors and become more pervasive in nature.

SELECTED SEASONALLY ADJUSTED KENTUCKY ECONOMIC INDICATORS

| | 198208 | 198209 | 198210 | 198211 | 198212 | 198301 | 198302 | 198303 | 198304 | 198305 | 198306 | 198307 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMPLOYMENT | | | | | | | | | | | | |
| AGRICULTURE | 64.031 | 63.918 | 63.796 | 63.776 | 63.988 | 64.810 | 64.301 | 64.008 | 63.712 | 63.324 | 62.889 | 62.988 |
| NON-AG WAGE & SALARY | 1160.184 | 1156.765 | 1155.698 | 1154.464 | 1145.964 | 1166.357 | 1163.980 | 1165.936 | 1161.068 | 1160.085 | 1167.486 | 1176.073 |
| MANUFACTURING | 245.090 | 242.880 | 240.310 | 238.729 | 235.756 | 239.880 | 238.594 | 241.548 | 243.292 | 242.895 | 245.385 | 249.341 |
| COAL MINING | 46.407 | 45.180 | 44.255 | 44.490 | 43.978 | 45.554 | 46.778 | 46.934 | 46.740 | 47.487 | 46.648 | 46.403 |
| CONSTRUCTION | 48.437 | 48.043 | 49.047 | 48.999 | 48.763 | 54.245 | 52.632 | 52.242 | 49.857 | 50.423 | 50.531 | 49.584 |
| TRADE | 260.149 | 259.261 | 260.947 | 259.167 | 256.093 | 263.371 | 266.044 | 265.380 | 263.604 | 260.638 | 262.805 | 261.461 |
| SERVICES | 216.037 | 214.734 | 216.504 | 216.989 | 216.655 | 219.114 | 219.285 | 219.291 | 218.474 | 218.334 | 222.614 | 224.100 |
| CIVILIAN GOVERNMENT | 221.445 | 225.070 | 224.596 | 224.853 | 223.924 | 225.379 | 222.642 | 221.724 | 217.707 | 216.677 | 219.491 | 223.869 |
| AVG WKLY HOURS IN MFG | 38.830 | 38.675 | 38.053 | 39.033 | 39.714 | 39.156 | 39.327 | 38.814 | 39.264 | 39.567 | 39.213 | 39.394 |
| TOTAL HOUSING UNITS AUTHORIZED | 514.710 | 760.591 | 871.009 | 843.541 | 783.373 | 893.692 | 952.440 | 902.139 | 792.748 | 674.013 | 1045.199 | 1640.600 |

UNITS: EMPLOYMENT IN THOUSANDS; AVERAGE WEEKLY HOURS; AND HOUSING UNITS.
SOURCE: KENTUCKY INFORMATION SYSTEM -- SEASONAL ADJUSTMENT BY PROGRAM X-11.

# Attitudes on Major Economic Issues in Kentucky

by Richard S. Snyder*

In April 1983, as the first phase of a survey design to collect information on major economic issues in Kentucky, a pilot questionnaire was sent to the 207 members of the Kentucky Economic Association (KEA) having Kentucky mailing addresses. The mission of the KEA is to foster economic analysis of major economic issues in Kentucky, and so the selection of its membership to identify such issues seemed reasonable. Although it is not known whether the 64 respondents to the questionnaire are representative of the KEA as a whole, the information collected was extensive enough to form the basis for a more comprehensive questionnaire, to be distributed to a larger sample at a later date. The pilot survey fulfilled its objective of obtaining a reasonably extensive issue base; no follow-up efforts were pursued for this first phase.

The survey sought to obtain information about the five most important economic issues in Kentucky, by asking respondents to list the five major economic issues in Kentucky believed "to be the most important, and therefore, most essential for the next Governor of Kentucky to understand and deal with." Using a weighted average to rank the issues, the five identified were, in their order of importance, Education, Taxation Policy, Economic Development, Unemployment, and the Right-to-Work issue.[1] Twenty-six issues were identified in all.

Table 1 shows the seven highest ranked economic issues and associated statistics. The issues appear to form four distinct groupings based on the weighted average. The first issue, education, stands alone with its weighted average over 46 percent higher than the second ranked issue. Education is an aggregate of nine separate, but related issues: education in general, teachers' salaries, quality of education, higher education, vocational education, secondary education, and primary education. Collective bargaining in education was included under the general collective bargaining category, an issue ranked at about the mid-point of all the issues.

The second grouping contains issues two and three, taxation policy and economic development, each within .468 points of each other. The third group consists of rankings four and five, unemployment and right-to-work. The fourth group includes all 21 remaining issues, of which only two are shown in Table 1. None of the issues in this group had a weighted average of more than 1.25, suggesting greater diversity in attitudes regarding the economic issues considered of lesser importance.

TABLE 1

RANKING OF MAJOR ECONOMIC ISSUES IN KENTUCKY

| Issues Selected by Survey Respondents | Rank | Total Responses | Weighted Average |
|---|---|---|---|
| Education | 1 | 57 | 5.719 |
| Taxation Policy | 2 | 38 | 3.906 |
| Economic Development | 3 | 45 | 3.438 |
| Unemployment | 4 | 18 | 2.344 |
| Right-to-work | 5 | 16 | 2.000 |
| Coal Industry | 6 | 15 | 1.250 |
| Regulation of Business | 7 | 11 | 0.844 |

SOURCE: The author.

Some background information was requested from each respondent. On this basis, the respondents were grouped according to length of residence in Kentucky, type of employment, and level of education. Over 70 percent of the sample consisted of respondents who have lived in Kentucky for more than ten years, 55 percent of the total are employed in academia; almost 52 percent of the sample have doctorate degrees in economics, while an additional 14 percent have doctorates in other disciplines.

There was considerable consistency within each of these groups in their selection of the five major economic issues. Respondents employed in academia were not found to stress the education issue more than the other respondents, for example. The convergence of opinions seems to suggest a consensus related to strengthening the State's economy as a whole. Issues of education, unemployment, and right-to-work are directed at the labor force, the quantity and quality of which will determine the nature of the State's economic base. Taxation policy is also a very important ingredient in the determination of the economic base, especially for businesses contemplating relocation.

Together, the four issues of education, unemployment, right-to-work, and taxation policy are a significant part of the foundation upon which economic development in general is based. An economy perceived to be below its potential, or below some established norm, is one which can be viewed as in need of economic development. It is this interpretation that the author finds manifest in the responses of KEA members to his questionnaire. This interpretation will be subject to reevaluation based upon data results from his forthcoming survey of a larger and more diverse population.

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**Note**

[1]The weighting assigned 10 points for responses indicated as most important, 8 points for the second most important issue, 6 points for the third issue, 4 points for the fourth issue, and 2 points for the last or fifth ranked issue. The cumulative weighted responses were then divided by the total number of responses, to give the weighted average of each issue.

# selected indicators OF ECONOMIC

These tables of selected indicators of economic activity were prepared by a special-purpose program of the Kentucky Economic Information System. The data in the tables are reported figures which were obtained from a variety of state and federal agencies, as well as from private firms.

## UNITED STATES DATA

| | Apr. 1983 | May 1983 | June 1983 | Qtr. II 1983 | % Chg. 83-I 83-II | % Chg. 82-II 83-II |
|---|---|---|---|---|---|---|
| CONSUMER PRICE INDEXES (1967=100, NOT SEASONALLY ADJUSTED) | | | | | | |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, OLD DEFINITION | 295.50 | 296.80 | 297.50 | 296.60 | 1.23 | 3.23 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, NEW DEFINITION | 295.50 | 297.10 | 298.10 | 296.90 | 1.25 | NA |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, FOOD AND BEVERAGES | 284.60 | 285.00 | 284.70 | 284.77 | 1.04 | 2.34 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, HOUSING (EXCL RENTAL EQUIV) | 320.00 | 320.90 | 321.60 | 320.83 | 1.05 | 2.32 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, HOUSING (INCL RENTAL EQUIV) | 320.30 | 321.80 | 323.10 | 321.73 | 1.07 | NA |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, APPAREL AND UPKEEP | 195.50 | 196.10 | 195.60 | 195.73 | 1.68 | 2.26 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, TRANSPORTATION | 292.30 | 296.20 | 298.30 | 295.60 | 1.90 | 2.96 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, MEDICAL | 353.50 | 354.30 | 355.40 | 354.40 | 1.12 | 9.39 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, ENTERTAINMENT | 244.60 | 244.80 | 245.40 | 244.93 | 0.77 | 4.39 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, OTHER | 283.20 | 283.60 | 284.50 | 283.77 | 0.94 | 11.34 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, SPECIAL INDEX: ENERGY | 410.00 | 421.30 | 427.30 | 419.53 | 3.07 | 3.47 |
| PRODUCER PRICE INDEXES (1967=100, NOT SEASONALLY ADJUSTED) | | | | | | |
| PRODUCER PRICE INDEX, ALL COMMODITIES | 300.80 | 301.70 | 302.50 | 301.67 | 0.40 | 1.03 |
| PRODUCER PRICE INDEX, ALL FINISHED GOODS | 283.00 | 284.30 | 285.00 | 284.10 | 0.11 | 2.07 |
| PRODUCER PRICE INDEX, FINISHED CONSUMER GOODS | 282.00 | 283.50 | 284.40 | 283.30 | 0.00 | 1.77 |
| PRODUCER PRICE INDEX, INTERMEDIATE MATERIALS | 309.10 | 310.10 | 311.70 | 310.30 | 0.25 | 0.14 |
| PRODUCER PRICE INDEX, INTERMEDIATE MATERIALS FOR MANUFACTURING | 291.10 | 292.00 | 292.40 | 291.83 | 0.64 | 0.42 |
| PRODUCER PRICE INDEX, CRUDE MATERIALS | 325.70 | 325.70 | 323.20 | 324.87 | 1.98 | -0.19 |
| PRODUCER PRICE INDEX, CRUDE FOODSTUFFS AND FEEDSTUFFS | 256.80 | 256.50 | 252.10 | 255.13 | 3.71 | -1.48 |
| PRODUCER PRICE INDEX, BITUM. COAL, INDUSTRIAL, SPOT(1967=100) | 467.80 | 431.60 | 441.90 | 447.10 | 1.24 | 4.03 |
| PRODUCER PRICE INDEX, BITUM. COAL, INDUSTRIAL, CONTRACT(JUNE76=100) | 150.70 | 150.60 | 149.90 | 150.40 | -0.02 | 0.13 |
| CONSUMER PRICES: ENERGY (U.S. CITY AVERAGE) | | | | | | |
| AVG PRICE FOR UTILITY (PIPED) GAS, PER 40 THERMS | 26.93 | 27.41 | 27.27 | 27.20 | 4.04 | 16.36 |
| AVG PRICE FOR UTILITY (PIPED) GAS, PER 100 THERMS | 62.19 | 64.77 | 64.70 | 63.89 | 6.38 | 18.25 |
| AVG PRICE FOR ELECTRICITY, PER 500 KWH | 37.12 | 37.42 | 39.22 | 37.92 | 1.67 | 2.22 |
| AVG PRICE FOR FUEL OIL #2 (HOME HEATING OIL), PER GALLON | 1.07 | 1.09 | 1.09 | 1.08 | -6.05 | -7.97 |
| AVG PRICE, GASOLINE, ALL TYPES, PER GALLON | 1.20 | 1.24 | 1.26 | 1.23 | 5.23 | -0.75 |
| AVG PRICE, GASOLINE, LEADED REGULAR, PER GALLON | 1.13 | 1.18 | 1.20 | 1.17 | 5.92 | -1.43 |
| AVG PRICE, GASOLINE, UNLEADED REGULAR, PER GALLON | 1.21 | 1.26 | 1.28 | 1.25 | 5.19 | -0.53 |
| AVG PRICE, GASOLINE, LEADED PREMIUM, PER GALLON | 1.32 | 1.38 | 1.43 | 1.38 | 4.59 | -0.70 |
| LABOR FORCE (SEASONALLY ADJUSTED, MILLIONS OF PERSONS) | | | | | | |
| LABOR FORCE, TOTAL (INCL RES ARMED FORCES) | 112.46 | 112.42 | 113.60 | 112.82 | 0.56 | 0.50 |
| LABOR FORCE, CIVILIAN (EXCL RES ARMED FORCES) | 110.79 | 110.75 | 111.93 | 111.16 | 0.57 | 0.97 |
| EMPLOYMENT, RESIDENT ARMED FORCES | 1.67 | 1.67 | 1.67 | 1.67 | 0.26 | 0.22 |
| EMPLOYMENT, TOTAL CIVILIAN BY RESIDENCE (EXCL ARMED FORCES) | 99.46 | 99.56 | 100.79 | 99.93 | 0.85 | 0.21 |
| EMPLOYMENT, AGRICULTURE | 3.37 | 3.37 | 3.52 | 3.42 | 0.79 | 0.86 |
| EMPLOYMENT, NONAGRICULTURAL | 96.09 | 96.19 | 97.26 | 96.51 | 0.85 | 0.19 |
| UNEMPLOYED, CIVILIAN, TOTAL | 11.33 | 11.19 | 11.15 | 11.22 | -1.90 | 8.23 |
| UNEMPLOYMENT RATE, TOTAL LABOR FORCE | 10.10 | 10.00 | 9.80 | 9.95 | -2.45 | 7.69 |
| UNEMPLOYMENT RATE, CIVILIAN LABOR FORCE | 10.20 | 10.11 | 10.00 | 10.10 | -2.45 | 7.19 |
| OTHER SELECTED NATIONAL INDICATORS: | | | | | | |
| U.S. GROSS NATIONAL PRODUCT ($ B) (% CHG AT ANNUAL RATE) | NA | NA | NA | 3272.00 | 13.29 | 6.57 |
| U.S. REAL GROSS NATIONAL PRODUCT ($ B 72$) (% CHG AT ANNUAL RATE) | NA | NA | NA | 1525.10 | 9.73 | 2.40 |
| PERSONAL INCOME, TOTAL, SEASONALLY ADJUSTED ($ B) | 2689.00 | 2719.30 | 2732.60 | 2713.63 | 8.69 | 5.87 |
| COMPOSITE INDEX OF 12 LEADING INDICATORS (1967=100) | 152.40 | 154.20 | 157.20 | 154.60 | 4.65 | 13.76 |
| INDEX OF INDUSTRIAL PRODUCTION, SEASONALLY ADJUSTED (1967=100) | 142.60 | 144.40 | 146.30 | 144.43 | 4.28 | 3.64 |
| INTEREST RATE, YIELD ON 3-MONTH TREASURY BILLS | 8.25 | 8.19 | 8.82 | 8.42 | 4.21 | -31.87 |
| PRIVATE HOUSING UNITS AUTH, 16000 PERMIT-ISSUING PLACES (SADJ THOU) | 1536.00 | 1635.00 | 1761.00 | 4932.00 | 58.87 | 79.02 |
| TOTAL INSTALLMENT CREDIT OUTSTANDING AT END OF MONTH ($ B) | 344.75 | 347.19 | 353.01 | 353.01 | 3.05 | 6.23 |

# CTIVITY

## KENTUCKY DATA

| | Apr. 1983 | May 1983 | June 1983 | Qtr. II 1983 | % Chg. 83-I 83-II | % Chg. 82-II 83-II |
|---|---|---|---|---|---|---|
| LABOR FORCE (NOT SEASONALLY ADJUSTED, THOUSANDS) | | | | | | |
| LABOR FORCE, TOTAL CIVILIAN | 1654.80 | 1648.70 | 1674.70 | 1659.40 | -0.07 | -1.73 |
| EMPLOYMENT, TOTAL, BY PLACE OF RESIDENCE | 1470.90 | 1473.10 | 1486.90 | 1476.97 | 1.28 | -2.58 |
| EMPLOYMENT, AGRICULTURAL | 55.60 | 62.80 | 76.00 | 64.80 | 37.68 | -1.97 |
| EMPLOYMENT, TOTAL NON-AGRICULTURAL | 1415.30 | 1410.30 | 1410.90 | 1412.17 | 0.06 | -2.61 |
| UNEMPLOYMENT RATE | 11.10 | 10.70 | 11.20 | 10.99 | -9.71 | 7.60 |
| EMPLOYMENT, TOTAL NON-AGRICULTURAL WAGE AND SALARY | 1162.00 | 1169.20 | 1173.30 | 1168.17 | 1.80 | -0.78 |
| EMPLOYMENT, BITUMINOUS COAL & LIGNITE MINING (SIC 12) | 45.30 | 45.50 | 45.90 | 45.57 | -0.22 | -7.01 |
| EMPLOYMENT, CONTRACT CONSTRUCTION | 47.30 | 50.40 | 53.10 | 50.27 | 12.37 | -1.31 |
| EMPLOYMENT, TOTAL MANUFACTURING | 243.90 | 245.80 | 248.00 | 245.90 | 2.67 | -1.77 |
| EMPLOYMENT, MANUFACTURING, DURABLE | 130.90 | 132.20 | 133.70 | 132.27 | 4.48 | -2.63 |
| EMPLOYMENT, MANUFACTURING, NON-DURABLE | 113.00 | 113.60 | 114.30 | 113.63 | 0.65 | -0.76 |
| EMPLOYMENT, TRANSPORTATION, COMMUNICATIONS & PUBLIC UTILITIES | 61.80 | 62.60 | 62.60 | 62.33 | 1.30 | -6.59 |
| EMPLOYMENT, WHOLESALE & RETAIL TRADE | 260.10 | 260.10 | 262.00 | 260.73 | 0.93 | 0.24 |
| EMPLOYMENT, FINANCE, INSURANCE & REAL ESTATE (SIC 60-67) | 50.80 | 52.00 | 52.40 | 51.73 | 0.65 | -0.39 |
| EMPLOYMENT, SERVICES (SIC 70-80) | 221.30 | 221.80 | 225.10 | 222.73 | 3.53 | 2.30 |
| EMPLOYMENT, CIVILIAN GOVERNMENT | 225.90 | 225.10 | 218.10 | 223.03 | -1.36 | -0.56 |
| EMPLOYMENT, STATE & LOCAL GOVERNMENT | 185.30 | 184.50 | 177.60 | 182.47 | -1.85 | -1.23 |
| HOURS AND EARNINGS OF PRODUCTION WORKERS IN MANUFACTURING | | | | | | |
| AVG WEEKLY HOURS, PROD WORKERS, TOTAL MANUFACTURING | 38.90 | 39.60 | 39.50 | 39.33 | 1.20 | 2.79 |
| AVG WEEKLY HOURS, PROD WORKERS, MANUFACTURING DURABLES | 38.50 | 39.40 | 39.20 | 39.03 | 1.39 | 2.81 |
| AVG WEEKLY HOURS, PROD WORKERS, NON-DURABLE MANUFACTURING | 39.50 | 39.80 | 39.90 | 39.73 | 1.36 | 3.11 |
| AVG HOURLY EARN, PROD WORKERS, TOTAL MANUFACTURING | 8.68 | 8.71 | 8.74 | 8.71 | 1.52 | 4.39 |
| AVG HOURLY EARN, PROD WORKERS, MANUFACTURING DURABLES | 9.39 | 9.40 | 9.42 | 9.40 | 0.82 | 4.17 |
| AVG HOURLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING | 7.85 | 7.88 | 7.93 | 7.89 | 2.11 | 4.69 |
| AVG WEEKLY EARN, PROD WORKERS, TOTAL MANUFACTURING | 337.65 | 344.92 | 345.23 | 342.60 | 2.74 | 7.31 |
| AVG WEEKLY EARN, PROD WORKERS, MANUFACTURING DURABLES | 361.52 | 370.36 | 369.26 | 367.05 | 2.22 | 7.09 |
| AVG WEEKLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING | 310.08 | 313.62 | 315.24 | 312.98 | 3.38 | 7.82 |
| MINING (MILLIONS OF TONS, MILLIONS OF TAX DOLLARS) | | | | | | |
| BITUMINOUS COAL & LIGNITE, PHYSICAL OUTPUT, EASTERN KY, TOTAL | 7.12 | 7.48 | 7.73 | 22.34 | -1.93 | -26.26 |
| BITUMINOUS COAL & LIGNITE, PHYSICAL OUTPUT, WESTERN KY, TOTAL | 2.94 | 3.10 | 2.61 | 8.66 | -7.35 | -11.93 |
| AVG HOURLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING | 14.53 | 14.57 | 14.66 | 14.59 | -1.97 | 11.60 |
| AVG WEEKLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING | 479.49 | 473.53 | 480.85 | 477.96 | -3.90 | -22.69 |
| AVG WEEKLY HOURS, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING | 33.00 | 32.50 | 32.80 | 32.77 | -1.90 | -30.73 |
| TAX RECEIPTS, COAL SEVERANCE, CONSOLIDATED, TOTAL | 16.67 | 14.36 | 21.14 | 52.17 | * | -11.94 |
| HOUSING (MILLIONS OF $, NO. OF PRIVATE RESID. UNITS--NOT SEAS ADJ) | | | | | | |
| VALUE OF CONSTRUCTION CONTRACTS, RESIDENTIAL & NON-RES | 207.80 | 178.20 | 229.70 | 615.70 | 57.47 | 62.28 |
| HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTHORIZED, 1 UNIT | 562.00 | 520.00 | 647.00 | 1729.00 | 62.65 | 87.53 |
| VALUATION, HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTH, 1 UNIT | 25.59 | 26.94 | 32.73 | 85.26 | 74.93 | 124.73 |
| HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTHORIZED, TOTAL | 754.00 | 773.00 | 1092.00 | 2619.00 | 22.21 | 109.52 |
| VALUATION, HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTH, TOTAL | 30.00 | 31.88 | 44.67 | 106.56 | 53.72 | 135.71 |
| NET LOANS MADE & ACQUIRED BY KY. SAVINGS & LOAN ASSOCIATIONS | -6.03 | 28.43 | 37.25 | 59.65 | -2.65 | 158.85 |
| RETAIL SALES (MIL $, 000 CARS) | | | | | | |
| TAX RECEIPTS, GENERAL FUND, SALES AND GROSS RECEIPTS | 64.51 | 74.24 | 65.66 | 204.40 | * | 2.16 |
| NEW PASSENGER CAR REGISTRATIONS, TOTAL, NOT SEAS. ADJ. | 8.16 | 8.02 | 10.89 | 27.07 | * | 17.48 |
| SELECTED STATE GOVERNMENT RECEIPTS (MIL $) | | | | | | |
| TAX AND NONTAX RECEIPTS, GENERAL FUND, TOTAL | 222.49 | 153.95 | 185.78 | 562.22 | * | 1.55 |
| TAX RECEIPTS, GENERAL FUND, SALES & USE TAXES, TOTAL | 57.85 | 56.74 | 57.46 | 172.04 | * | -1.07 |
| TAX RECEIPTS, GENERAL FUND, INCOME TAX, INDIVIDUAL | 87.43 | 45.97 | 33.94 | 167.34 | * | 7.21 |
| TAX RECEIPTS, GENERAL FUND, INCOME TAX, CORPORATION | 19.69 | 4.58 | 42.08 | 66.36 | * | -7.27 |
| TAX RECEIPTS, STATE ROAD FUND, STATE SHARE | 29.39 | 31.52 | 36.67 | 97.58 | * | -1.20 |
| TAX RECEIPTS, STATE ROAD FUND, MOTOR FUELS TAXES, NORMAL | 16.50 | 12.13 | 20.06 | 48.69 | * | 1.20 |
| TAX RECEIPTS, STATE ROAD FUND, MOTOR VEHICLE USAGE TAX | 11.23 | 9.97 | 12.22 | 33.42 | * | 12.10 |

PRIVATE SOURCES FOR THE ABOVE DATA INCLUDE:
F. W. DODGE DIVISION (MCGRAW-HILL INFORMATION SYSTEMS COMPANY), VALUE OF CONSTRUCTION CONTRACTS;
R. L. POLK & COMPANY, NEW CAR REGISTRATIONS

NOTE: THE DATA ON PERMIT-AUTHORIZED CONSTRUCTION COME FROM THE BUREAU OF THE CENSUS, U.S. DEPARTMENT OF COMMERCE AND REPRESENT THE KENTUCKY PORTION OF THE NATIONAL SURVEY OF 16,000 PERMIT-ISSUING PLACES.

* = QUARTER TO QUARTER COMPARISONS NOT MEANINGFUL DUE TO SEASONAL VARIATION

# The Revised Outlook for Kentucky Revenues for Fiscal Year 1984

Prepared by staff of the Office of Revenue Estimating and Economic Analysis, Kentucky Revenue Cabinet*

This article contains the Kentucky Revenue Cabinet's revised forecast for the General Fund and Transportation Fund for fiscal year 1983-84 (FY 1984) and some of the data and rationale supporting the revision. It is based upon testimony provided by Secretary Ronald G. Geary, Kentucky Revenue Cabinet, to the Interim Joint Committee on Appropriations and Revenue of the Kentucky General Assembly, on September 22, 1983. The basis for the revisions are trends in fiscal year 1982-83 receipts and a review of the Kentucky economy.

### Receipts for Fiscal Year 1982-83

Fiscal Year 1982-83 (FY 1983) was another poor year for Kentucky revenue. Compared to the previous year, combined tax receipts for the General and Transportation Funds rose only 4.8 percent. General Fund *tax* receipts increased 5.5 percent, and Transportation Fund *tax* receipts rose 1.1 percent. Even in FY 1980, when the General Assembly changed the revenue base and affected a large tax reduction by removing the sales tax from residential utility bills and by limiting property tax revenue growth, combined tax receipts increased by 3.4 percent in the state's two major funds. *Non-tax* receipts for the General Fund during FY 1983 were down by 2.8 percent, due largely to declining interest rates paid on state deposits. In the Transportation Fund, higher departmental fees and an increase in federal grants pushed *non-tax* receipts up by 4.4 percent. In FY 1983, the total tax and non-tax revenues of the General Fund grew by 5.2 percent and the total Transportation Fund grew 1.7 percent.

Tax receipts would have been lower than they were in FY 1983, had it not been for several developments. The 1982 General Assembly adopted new wholesale alcoholic beverage taxes; these boosted General Fund receipts by about $20 million. It also strengthened the Transportation Fund by adopting a weight-distance tax on trucks and by raising the minimum rate for motor fuels taxes from 9 percent to 10 percent of the average wholesale price. The weight distance tax produced $17.8 million, about 5 percent of the Transportation Fund total. Raising the minimum rate on motor fuels prevented a loss of about $18 million in revenue which would have occurred had the change not been made. In addition, the Revenue Cabinet added nearly $30 million to the General Fund by intensifying its taxpayer audits to collect taxes due.

Federal tax law changes also had an effect. The 10 percent reduction in federal individual income tax rates in July 1982 reduced the amount of federal income tax which Kentucky taxpayers could deduct from Kentucky income, thereby increasing Kentucky's income tax base. This change was estimated to have increased Kentucky's income tax receipts by about $26 million during 1982-83. However, the effect of this federal change was partially offset by other federal changes—subsequently adopted by Kentucky—which liberalized certain deductions.

When the effects of law changes and audit collections are calculated, the underlying economic performance of Kentucky's major taxes was weak during 1982-83. After adjustment for the above factors, three of the state's seven largest tax sources produced less revenue than in the previous year; the two largest sources produced only slight growth. Adjusted sales and use tax revenues grew less than 2.0 percent, and adjusted revenues from the individual income tax grew by only 0.2 percent. Coal severance tax receipts dropped 16.6 percent, motor fuels declined by 11.2 percent, and corporation income tax revenues fell 1.0 percent. The property tax, portions of which are limited by law to 4.0 percent annual growth, grew by 3.7 percent. The motor vehicle usage tax, reflecting a rebound in automobile sales during the last six months of FY 1983, showed signs of a recovering economy and grew 6.7 percent.

### A Review of the Kentucky Economy

The Kentucky economy is best understood in relation to the rest of the nation, which is finally emerging from its worst recession in the post World War II era. Although the national downturn began in July 1981, FY 1983 was still restrained with secular stagnation. Indeed real GNP declined slightly from the previous fiscal year and the U.S. unemployment rate averaged 10.3 percent during FY 1983. On the other hand, the moderate inflation rate of 4.3 percent for FY 1983 helped lower interest rates. Nevertheless, the relatively high real interest rates reflected the uneasy concerns of the financial community over a cloudy economic future.

The fiscal policies executed under the Reagan Administration have complicated the situation. Although there has been an important shift away from non-defense toward defense spending, annual Federal government total expenditures have continued to grow at about 20 percent of the GNP. At the same time, the Economic Recovery Tax Act of 1981 mandated the largest tax cut in American history.

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The Federal budget deficit has grown dramatically as a result, and is expected to reach almost $200 billion next year. The implied government financing potentially could crowd out private borrowers, threatening the current recovery and pressuring the Federal Reserve to accommodate the larger deficit. Such actions could rekindle double-digit inflation. Nevertheless, the consensus opinion of professional forecasters seems to be for modest recovery continuing through FY 1984.[1] Yet the great feeling of uncertainty is clearly reflected in the erratic performance of the financial markets.

Kentucky's economy was damaged more than the nation's during the recession of 1981-82. For example, the Kentucky unemployment rate averaged 11.1 percent during FY 1983, almost a full percentage point higher than the national average. In addition, Kentucky's personal income did not appear to grow as fast as the national average.[2] Furthermore, the economic recovery in the Commonwealth appears to be lagging behind the rest of the nation.

A partial explanation of the extra aggravation within the Kentucky economy probably lies in the historical pattern of economic development. It is well-known that high-growth regions generally tend to fare better during a national recession than low-growth regions.[3] The trend throughout most of the last decade, with Kentucky ahead of the national average, as measured by key economic indicators such as personal income and employment, reversed itself in the early 1980s. This loss of momentum probably caused greater economic vulnerability within the state.

Another factor lies in the uneven impact of Federal policies. Since Kentucky does not possess a significant share of the defense industry, Federal government defense-related expenditures have not benefited this state as much as some others. Furthermore high interest rates, induced by tight monetary policies, do not affect all industries equally. The manufacturing, construction, and mining sectors have been hit especially hard nationwide as well as statewide. Kentucky's disproportionate reliance upon coal and durable goods partially accounts for the additional severity of this state's recession. On the other hand, certain areas within the state, such as Fayette County, have benefited from a more favorable mix of private and public employment, and have continued to grow at a rate greater than the national averages through at least 1981.[4]

Manufacturing is the largest sector of the Kentucky economy, providing over 20 percent of all available jobs. The durable goods portion of this industry is especially vulnerable to high interest rates. Indeed Kentucky employment for the production of durable goods declined by 8.7 percent in FY 1983, while the employment level for non-durable goods production declined only by 3.2 percent. This phenomenon was especially visible in Jefferson County, which possesses a relatively large durable goods sector, including a supporting industry for automobile manufacturing. The lower interest rates stimulated a national upswing in automobile sales in the second quarter of calendar 1983 that should help the Kentucky economy throughout FY 1984.

The depressed Kentucky construction industry has responded quickly to lower interest rates, with the value of construction contracts improving by 17.7 percent and the number of permits authorized for residential construction improving by 61.3 percent in FY 1983. The strongest gains were recorded in the second quarter of calendar 1983, and this sector can be expected to lead the Kentucky economy throughout FY 1984. Yet employment continues to lag behind in the state construction industry, declining by 2.5 percent during FY 1983.

The Kentucky coal industry supplies about 18 percent of the U.S. market. It was perhaps more adversely affected by the national recession than any other sector of the state economy. The Kentucky Cabinet for Human Resources estimates that the unemployment rate within the Kentucky coal industry soared to 25.3 percent during FY 1983 compared to 7.9 percent during FY 1982. Kentucky coal production declined by 20.7 percent during the same time period. The decline in international oil prices, essentially caused by a worldwide recession, has compounded the problem for coal. Western Kentucky coal was especially damaged by overstockpiling and EPA regulations; Eastern Kentucky coal was damaged by the declining U.S. steel industry, falling exports, and overstockpiling. The national recovery should help somewhat, but the industry will probably remain depressed throughout FY 1984, because of the underlying structural damage cited above.

The behavior of the coal industry may explain the different response of the Kentucky economy to the recession of 1981-82 compared to the national recession of 1973-75. The earlier recession was induced by a supply shock, i.e., the Arab oil embargo, which stimulated the consumption of coal. The recent recession was induced by a demand shock, i.e., restrictive monetary policies, which discouraged the consumption of coal. Consequently, the Kentucky coal sector was healthy during the earlier national recession, and the Kentucky economy as a whole fared much better than in recent times.

The prospects for FY 1984 depend in large measure upon the impact of Federal economic policies. DRI forecasters anticipate a moderate growth rate of 4.7 percent for real GNP tempered by an inflation rate of 3.8 percent during FY 1984. U.S. personal income will grow by 8.1 percent in nominal terms. The U.S. unemployment rate is expected to continue its slow decline to an annual value of 9.23 percent. Although interest rates will creep upward from their lower values of the early fall, 1983, they will manage to maintain a lower average in FY 1984 than in 1983. The automobile and construction industries will lead this moderate national recovery.[5]

Kentucky can expect to share some of the gains made by the rest of the nation in most industrial sectors, but as long as the coal sector remains depressed, the Kentucky industrial economy will probably grow more slowly than the nation as a whole. Meanwhile, the summer drought of 1983 has severely damaged the agricultural economy. In spite of these difficulties, the Commonwealth will improve slightly in FY 1984 with positive growth in both real personal income and employment. A similar conclusion should

TABLE 1

KENTUCKY REVENUES: FISCAL YEAR 1983 AND REVISED ESTIMATES FOR FISCAL YEAR 1984

| | Actual Receipts for 1982-83 (Millions) | September 1983 Revised Estimate for 1983-84 (Millions) | Growth Over Actual Receipts for 1982-83 | September 1983 Estimate Compared with May 1982 Budget Estimates for FY 1984 (Millions) |
|---|---|---|---|---|
| GENERAL FUND SUMMARY | | | | |
| Sales and Use | $ 700.21 | $ 746.99 | 6.7% | $ (81.71) |
| Individual Income | 647.17 | 701.88 | 8.5 | (117.92) |
| Corporation Income | 172.12 | 181.39 | 5.4 | 21.29 |
| Coal Severance - Total | 201.81 | 211.36 | 4.7 | (87.64) |
| Less: Transfer | 0.00 | (21.75)* | — | 0.00 |
| Equals: General Fund | 201.81 | 189.61 | (6.0) | (87.64) |
| Oil Production | 10.70 | 11.50 | 7.5 | (2.00) |
| Mineral Severance | 5.35 | 5.90 | 10.3 | (0.10) |
| Natural Gas Severance | 3.59 | 3.90 | 8.6 | (0.40) |
| Total Property | 203.34 | 219.66 | 8.0 | (0.68) |
| Inheritance | 38.32 | 43.50 | 13.5 | 8.50 |
| Investment Receipts | 32.42 | 35.40 | 9.2 | (10.00) |
| NEW TAXES | | | | |
| Distilled Spirits Wholesale | 11.20 | 11.80 | 5.4 | (7.20) |
| Beer Wholesale | 18.87 | 19.80 | 4.9 | (6.40) |
| Wine Wholesale | 2.38 | 2.50 | 5.0 | (1.90) |
| Other General Fund | 160.54 | 160.18 | (0.2) | 4.37 |
| TOTAL GENERAL FUND | $2,208.02 | $2,334.01 | 5.7% | $(281.79) |
| TRANSPORTATION FUND SUMMARY | | | | |
| Motor Fuels Normal | $189.88 | $183.50 | (3.4)% | $(10.50) |
| Motor Fuels Normal - Use | 6.69 | 7.50 | 12.1 | (3.30) |
| Motor Vehicle Usage | 106.53 | 127.80 | 20.0 | (10.45) |
| Motor Vehicle Rental Usage | 3.41 | 3.50 | 2.6 | (1.00) |
| Passenger Car License | 20.91 | 18.00 | (13.9) | (2.00) |
| Coal Severance - Road | 0.00 | 21.75* | — | 0.00 |
| NEW TAXES | | | | |
| Weight Distance | 17.83 | 25.00 | 40.2 | (10.20) |
| Overweight Permit | 0.00 | 0.00 | — | (3.10) |
| Other Transportation Fund | 34.73 | 37.20 | 7.1 | (1.05) |
| TOTAL TRANSPORTATION FUND | $379.98 | $424.25 | 11.7% | $(41.60) |

*By Finance Secretary's order in March 1983, $21.75 million is not be be transferred to the Transportation Fund; however, for comparison purposes, the September 1983 revision assumes that the transfer will be made.

SOURCE: Office of Revenue Estimating and Economic Analysis, Kentucky Revenue Cabinet.

prevail for the tax receipts collected by the Kentucky Revenue Cabinet.

### Revised Revenue Estimates for 1983-84

The General Fund revised forecast of $2,334.01 million in 1983-84 represents a 5.7 percent rate of growth over actual receipts for 1982-83. This is $118.09 million less than the March 1983 estimate and a cumulative shortfall of $281.79 million from the official budget estimate prepared in May 1982.

The Transportation Fund revised forecast for 1983-84, $424.25 million, represents 11.7 percent growth over actual receipts for 1982-83. This is $11.12 million less than the March 1983 revised estimate and a cumulative shortfall of $41.60 million from the official budget estimate prepared in May 1982. Summary data for both funds are shown in Table 1.

Estimates for FY 1984 for each of the major taxes supporting the two funds are summarized in the table. As can be seen, most of these estimates are less than the revenues anticipated when the budget estimates were first made, for all of the reasons mentioned thusfar. For comparative purposes, the current estimate for the General Fund retains the $21.75 million in coal severance revenues that were not transferred to the Transportation Fund in FY 1983. Also, the property tax estimate includes the one-time benefit from the Automated Vehicle Identification System (AVIS) which will become effective in January, 1984. Finally, the upward revision in the inheritance and estate tax estimate primarily reflects the impact of Federal tax legislation.

#### Notes

[1]For example, the Data Resources, Inc. forecast for July 1983.

[2]Unfortunately, personal income data are only available through the first quarter of calendar 1983 and so precise comparisons between the two fiscal years cannot be made. These data are estimated by the Bureau of Economic Analysis, U.S. Department of Commerce.

[3]Richard Rosen, "Identifying States and Areas Prone to High and Low Unemployment," *Monthly Labor Review*, Volume 103, Number 3, March 1980, pp. 20-24 and Lynn E. Browne, "Two Years of Stagnation: Regional Perspective," *New England Economic Review*, September/October 1982.

[4]County-level income and employment estimates, comparable to national estimates, are current through data for 1981. County-level data for 1982 will not be available until April 1984. These data are estimated by the Bureau of Economic Analysis, U.S. Department of Commerce.

[5]See U.S. Forecast Summary, Data Resources, Inc., July 1983.

# Kentucky Revenues in 1982-83 and the Outlook for 1983-84

by Lawrence K. Lynch*

*Editor's Note: The following article is based upon testimony presented by the author to the Interim Committee on Appropriations and Revenue, Kentucky General Assembly, July 28, 1983.*

### The U.S. and Kentucky Economies

Real gross national product (RGNP) in the United States resumed growth in the first quarter, 1983, after suffering one of its most severe post-World War II recessions during 1981-82. The growth rate for the first quarter, 1983, was at an annual rate of 2.6 percent, followed by an acceleration to 9.7 percent in the second quarter. Much of the growth is centered in the defense industry; for example, in June, orders for durable goods in the U.S. grew by 5.5 percent, but only 1.2 percent when military orders are excluded. The national economic strength seems nonetheless to be broadly based, with strong improvements in automobile sales, housing and consumer spending. The Reagan administration expects that the recovery will continue, with RGNP growing by 5.5 percent for all of 1983.

Despite this news, state government tax revenues in Kentucky declined during the second quarter, 1983, when compared to the comparable period in 1982, resulting in a very poor financial year for Kentucky. Fiscal year (FY) 1983 ended with a shortfall in the General Fund. Receipts were nearly $150 million below the amount projected by the Revenue Cabinet in May 1982 and over $180 million below the author's July 1982 projections.[1] The Revenue Cabinet and the author both made downward adjustments on several occasions throughout the year for both their General Fund and the Transportation Fund estimates. Each time, the author assumed that an economic recovery was imminent, when in fact the recovery never came. This resulted in a shortfall of receipts below all his projections, as well as below the Revenue Cabinet's estimates.

Kentucky's total nonagricultural wage and salary employment grew by only 1.8 percent in the second quarter of 1983, and was 0.78 percent below the level of the second quarter, 1982. Coal mining employment was 7.0 percent below its 1982 level, manufacturing employment was 1.8 percent lower, and employment in transportation and public utilities was 6.6 percent lower. Only services employment showed a significant improvement, 2.3 percent higher. The seasonally unadjusted unemployment rate in Kentucky declined in recent months from a high of 12.7 percent in February to 11.2 percent in June 1983. However, the seasonally adjusted Kentucky unemployment rate grew from the February level of 10.8 percent to the June rate of 11.2 percent. These rates compare unfavorably with the seasonally adjusted U.S. civilian unemployment rates of 10.4 percent in February and just slightly below 10 percent in June.

The depression in the coal industry cannot account for all of Kentucky's lackluster economic behavior. Nationally, strong automobile sales, strong housing, and strong consumer spending should be helping Kentucky's economy and generating some revenue growth in sales and income taxes. But as noted above, revenue growth was dismal in the April-June quarter. Part of the explanation is that much of the U.S. growth is centered in the defense industry, in which Kentucky does not share. Perhaps another part of the explanation is the continuing shift of the nation's economy into the service-production rather than goods-production sectors, while Kentucky's economy is more goods-production oriented.

However, the national data report strength in nondefense goods-production industries, but this strength has not emerged in Kentucky. This leaves two perplexing questions. Will the U.S. economic expansion continue? And if it does, when will Kentucky begin to share in it?

### Receipts, Fiscal Year 1983

Table 1 reports state government receipts for FY 1982 and FY 1983. Receipts shown for the individual income tax in FY 1982, as well as the General Fund total, have been adjusted upward by $19 million to reflect income tax refunds on 1980 income, due in FY 1981, but paid in FY 1982.

As can be seen in the third column of this table, FY 1983 General Fund receipts increased by 4.3 percent, and Transportation Fund receipts by only 0.1 percent. However, in order to measure the true economic growth of tax receipts during FY 1983, certain adjustments were made to account for audit collections resulting from the efforts of the Revenue Cabinet's additional auditors. These adjustments, shown in the fourth column of Table 1 were: Sales and Use tax, $18.1 million; Corporation Income tax, $6.9 million; and Coal Severance tax, $3.5 million; for a total of $28.5 million of revenue attributable to audit collections. In other words, had it not been for the unusually high audit collections, General Fund tax receipts would have been $28.5 million lower than the reported $2,208 million. A further adjustment was made to show the level of decline in coal severance tax receipts. During FY 1983, no coal severance tax receipts were transferred to the

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Transportation Fund; during FY 1982, $21.8 million had been transferred. Therefore, in the adjusted column, $21.8 million is subtracted from the General Fund and added to the Transportation Fund, and this allows analysis on a comparable year to year basis.

The last column of Table 1 shows the percentage change from FY 1982 to FY 1983 on the adjusted basis just described. The true economic growth in the General Fund was only 1.9 percent, with no growth in Sales and Use tax receipts, very slow growth in Individual Income tax receipts, and a very large decline in Coal Severance tax receipts. Moreover, there would have been no growth at all in the General Fund had the new liquor taxes and the Insurance Premium Surcharge not been enacted by the 1982 General Assembly.

The Transportation Fund performed slightly better than the General Fund, growing by 5.9 percent in FY 1983 on the comparable year-to-year or adjusted basis. Since coal severance monies were not transferred however, the actual growth of this fund was only 0.1 percent. Motor Vehicle Usage tax receipts grew by $6.9 million (6.7 percent), while Motor Fuels tax receipts declined by $2.5 million (2.7 percent). The new Weight Distance tax accounted for $17.8 million and was the primary offsetting factor that prevented an actual decline in the fund.

### The Outlook for Fiscal Year 1984

The outlook for Kentucky receipts in 1983-84 depends upon the continuation of the U.S. economic recovery and the degree of Kentucky's participation in the recovery. Most economists believe that the U.S. economic gains will continue, albeit at a relatively slow growth rate, at least until the end of 1984. The major factor that could interrupt recovery is a surge in interest rates. Data Resources, Inc. (DRI) believes that high real interest rates will persist in 1984 and 1985 due to three factors: a) continued federal deficits of about $200 billion per year, b) persistent expectations of renewed inflation, and c) financial instability, especially among Third World debtor nations.[2]

High real interest rates will make business investment a weak component of the recovery, and will also keep the dollar strong, hurting exports. The strongest components of the recovery will be military spending and consumption. Since Kentucky needs new investment to create growth, and has a weak military sector, its participation in the U.S. recovery may be weaker than in the past. Further, the expected low inflation rate, while good news for consumers, will hurt tax revenue growth. In principle, the lower rate of inflation should also mean lower costs for government, suggesting that a reduction in the rate of inflation could justify slower budget growth without any effect on the level of "real" expenditures.

TABLE 1

GENERAL FUND RECEIPTS AND TRANSPORTATION FUND TAX RECEIPTS, FISCAL YEARS, 1982 AND 1983

| Tax Source | FY 1982 (Millions) | FY 1983 (Millions) | Percent Change FY 1982-FY 1983 | Adjusted FY 1983 (Millions) | Percent Change |
|---|---|---|---|---|---|
| Sales and Use | $ 682.2 | $ 700.2 | 2.6% | $ 682.1 | -0.0% |
| Individual Income | 619.8* | 647.2 | 4.4* | 647.2 | 4.4 |
| Corporation Income | 166.8 | 172.1 | 3.2 | 165.2 | -1.0 |
| Coal Severance | 237.9 | 201.8 | -15.2 | 198.3 | -16.6 |
| Less Transfer | (21.8) | (0.0) | — | (21.8) | — |
| Minerals and Gas Severance | 8.8 | 8.9 | 1.1 | 8.9 | 1.1 |
| New Liquor Taxes | — | 34.2 | — | 34.2 | — |
| Insurance Premium Surcharge | — | 6.9 | — | 6.9 | — |
| Other General Fund, including Non-tax Receipts | 423.8 | 436.7 | 3.0 | 436.7 | 3.0 |
| TOTAL GENERAL FUND | $2,117.5* | $2,208.0 | 4.3%* | $2,157.7 | 1.9% |
| Motor Fuels | $202.1 | $196.6 | -2.7% | $196.6 | -2.7% |
| Motor Vehicle Usage | 103.0 | 109.9 | 6.7 | 109.9 | 6.7 |
| Coal Severance | 21.8 | 0.0 | — | 21.8 | — |
| Weight-Distance | — | 17.8 | — | 17.8 | — |
| Overweight Coal Trucks | — | 0.0 | — | 0.0 | — |
| Other Transportation Fund | 51.1 | 54.2 | 6.1 | 54.2 | 6.1 |
| TOTAL TAX RECEIPTS, STATE ROAD FUND | $378.0 | $378.5 | 0.1% | $400.3 | 5.9% |

*Adjusted to reflect $19.0 million in refunds carried over from FY 1981 into FY 1982 and paid in July 1981.

SOURCE: Kentucky Revenue Cabinet, "Kentucky State Government Revenue," Vol. 25, No. 12.

In order to revise estimates of Kentucky revenues for FY 1984, the author used the national economic assumptions of the DRI Control Solution of July 1983:

1. RGNP growth of 3.0 percent for calendar 1983, 4.6 percent for 1984;
2. Inflation rates (as measured by the GNP implicit deflator) of 4.6 percent in 1983 and 4.2 percent in 1984;
3. U.S. unemployment rates averaging 9.7 percent in 1983 and 8.7 percent in 1984;
4. Interest rates that remain, with fluctuations, at about their current levels in 1983 and 1984;
5. U.S. personal income growth of 6.5 percent in 1983 and 8.7 percent in 1984.[3]

During the period 1978 through 1982, Kentucky's personal income grew by an average of 1.4 percent per year below the U.S. rate.[4] If this trend persists, and there is little reason to expect that it will not, Kentucky personal income will grow by only 5.1 percent in 1983, and 7.3 percent in 1984. In addition, Kentucky's seasonally adjusted unemployment rate is expected to remain about 0.5 to 1.0 point above the U.S. rate.

TABLE 2

JULY 1983 LYNCH REVISED ESTIMATES OF FISCAL YEAR 1984 REVENUES

| Tax Source | Estimates of FY 1984 Receipts (Millions) | Estimated Growth FY 1983-FY 1984 |
|---|---|---|
| Sales and Use | $ 735.00 | 5.0% |
| Individual Income | 693.8 | 7.2 |
| Corporation Income | 183.5 | 6.6 |
| Coal Severance | 215.3 | 6.7 |
| Minerals and Gas Severance | 9.4 | 5.6 |
| New Liquor Taxes | 35.9 | 5.0 |
| Other General Fund | 457.2 | 3.1 |
| TOTAL GENERAL FUND | $2,330.1 | 5.5% |
| Motor Fuels | $210.4 | 7.0% |
| Motor Vehicle Usage | 117.0 | 6.5% |
| Weight-Distance | 18.7 | 5.1 |
| Other Transportation Fund | 56.9 | 5.0 |
| TOTAL TAX RECEIPTS, STATE ROAD FUND | $403.0 | 6.5% |

SOURCE: Estimates made by the author.

## Revised Revenue Estimates for FY 1984

The author applied his elasticity model for all major taxes, using the elasticity coefficients estimated in the Fall of 1981.[5] These coefficients will be reestimated in the Fall of 1983, following the availability of revised data. Several other steps were taken to adjust for the audit collections reported above.[6] In addition, the Minerals and Gas Severance tax, the new liquor taxes, and the Weight Distance tax were all assigned elasticity coefficients of 1.0. That is, their receipts were estimated to grow at the same rate as personal income. Motor Fuels tax receipts were estimated to grow by 7.0 percent (3.0 percent in gallonage and 4.0 percent growth in price). Other Transportation Fund tax receipts were estimated to grow at their historical average growth rate of 5.0 percent. The Insurance Premium Surcharge expired at the end of FY 1983, so $6.9 million of revenue in FY 1983 will not recur in FY 1984. Finally, it was assumed, for purposes of these revised revenue estimates, that no Coal Severance tax receipts would be transferred from the General Fund to the Transportation Fund in FY 1984.

The revised revenue estimates for FY 1984 are shown in Table 2. The estimate for the General Fund, $2330.1 million, is $366.6 million (13.6 percent) below the author's estimate for FY 1984 made in July 1982.[7] While enormous, this reduction is realistic in light of several factors that have occurred during the past year: a much lower revenue base than expected for FY 1983 (lower by $184.6 million); and a much slower rate of growth in personal income than was then anticipated, due in part to a lower rate of inflation. The Transportation Fund is expected to grow by 6.5 percent to $403.0 million, $88.1 million (17.9 percent) below last summer's expectations.

In conclusion, it is clear that the revenue estimates for FY 1984, as revised and presented here, represent severe reductions from earlier expectations and will present severe budgetary problems for Kentucky state government in this second year of the 1982-84 biennium. The downward revisions are the result of a sharper than expected reduction in inflation, and a persistently sluggish Kentucky economy.

### Notes

[1]Richard Thalheimer and William B. Gardner II, "Kentucky Revenues in 1981-82 and a Tentative Outlook for 1982-83," and Lawrence K. Lynch, "Renewed Growth in Kentucky Tax Revenues," *Kentucky Economy: Review & Perspective*, Vol. 6, No. 3 (September 1982), pp. 10-14.

[2]Data Resources, Inc., *Review of the U.S. Economy*, July 1983.

[3]*Ibid.*

[4]Bureau of Economic Analysis, U.S. Department of Commerce (April 1983), through the Kentucky Economic Information System (KEIS).

[5]The author's elasticity model was discussed in his "The Outlook for Kentucky Tax Revenues," *Kentucky Economy: Review & Perspective*, Vol. 4, No. 2 (June 1980), pp. 10-11.

[6]The procedure used was as follows:

a) audit receipts in FY 1983, if any, were subtracted from FY 1983 total receipts, for each tax;
b) the elasticity factor was applied to the expected 1983 growth rate of personal income—5.1 percent—to yield an estimated percentage increase in revenue for FY 1984;
c) the percentage increase was multiplied by audit-adjusted FY 1983 receipts; and
d) additional audit receipts expected for FY 1984 (assumed to remain at their FY 1983 level) were added in.

For example, the Sales and Use tax estimate was:

| 83 Receipts | Additional Audits | PI Growth Rate | E | Additional Audits | |
|---|---|---|---|---|---|
| (700.2 − | 18.1) | x (1 + (.051 x .9987)) | + | 18.1 | = 735.0 |

[7]Lynch, 1982, p. 11.

**RELATIVE GROWTH IN PERSONAL INCOME, POPULATION, AND PER CAPITA PERSONAL INCOME, 1979-82**

| Region | Personal Income (Millions of Current $) 1979 | 1982 | % Change 1979-82 | Population, July 1 (Thousands of Persons) 1979 | 1982 | % Change 1979-82 | Per Capita Personal Income (Current $) 1979 | 1982 | % Change 1979-82 | % of U.S. Average 1982 |
|---|---|---|---|---|---|---|---|---|---|---|
| United States | $1,943,983 | $2,571,592 | 32.3 | 224,569 | 231,534 | 3.1 | $8,657 | $11,107 | 28.3 | — |
| Far West | 296,783 | 397,703 | 34.0 | 30,611 | 32,498 | 6.2 | 9,695 | 12,238 | 26.2 | 110 |
| Mideast | 387,880 | 513,248 | 32.3 | 42,358 | 42,461 | .2 | 9,157 | 12,087 | 32.0 | 109 |
| New England | 110,039 | 148,868 | 35.3 | 12,345 | 12,493 | 1.2 | 8,913 | 11,916 | 33.7 | 107 |
| Southwest | 173,169 | 252,206 | 45.6 | 20,777 | 22,677 | 9.1 | 8,335 | 11,122 | 33.4 | 100 |
| Great Lakes | 378,960 | 459,698 | 21.3 | 41,611 | 41,585 | -.1 | 9,107 | 11,055 | 21.4 | 100 |
| Plains | 147,267 | 187,104 | 27.1 | 17,097 | 17,342 | 1.4 | 8,614 | 10,789 | 25.2 | 97 |
| Rocky Mountain | 52,998 | 73,837 | 39.3 | 6,439 | 6,866 | 6.6 | 8,231 | 10,754 | 30.7 | 97 |
| **Southeast** | **383,591** | **520,232** | **35.6** | **51,977** | **54,180** | **4.2** | **7,380** | **9,602** | **30.1** | **86** |
| Alabama | 26,458 | 34,101 | 28.9 | 3,869 | 3,943 | 1.9 | 6,838 | 8,649 | 26.5 | 78 |
| Arkansas | 15,305 | 19,430 | 27.0 | 2,269 | 2,291 | 1.0 | 6,745 | 8,479 | 25.7 | 76 |
| Florida | 77,673 | 114,347 | 47.2 | 9,471 | 10,416 | 10.0 | 8,202 | 10,978 | 33.8 | 99 |
| Georgia | 39,732 | 54,035 | 36.0 | 5,391 | 5,639 | 4.6 | 7,370 | 9,583 | 30.0 | 86 |
| **Kentucky** | **25,941** | **32,762** | **26.3** | **3,644** | **3,667** | **.6** | **7,119** | **8,934** | **25.5** | **80** |
| Louisiana | 30,791 | 44,633 | 45.0 | 4,139 | 4,362 | 5.4 | 7,439 | 10,231 | 37.5 | 92 |
| Mississippi | 15,358 | 19,840 | 29.2 | 2,508 | 2,551 | 1.7 | 6,124 | 7,778 | 27.0 | 70 |
| North Carolina | 41,336 | 54,431 | 31.7 | 5,802 | 6,019 | 3.7 | 7,125 | 9,044 | 26.9 | 81 |
| South Carolina | 20,548 | 27,231 | 32.5 | 3,087 | 3,203 | 3.8 | 6,657 | 8,502 | 27.7 | 77 |
| Tennessee | 31,979 | 41,420 | 29.5 | 4,533 | 4,651 | 2.6 | 7,054 | 8,906 | 26.3 | 80 |
| Virginia | 44,752 | 60,923 | 36.1 | 5,325 | 5,491 | 3.1 | 8,405 | 11,095 | 32.0 | 100 |
| West Virginia | 13,718 | 17,078 | 24.5 | 1,939 | 1,948 | .5 | 7,075 | 8,769 | 23.9 | 79 |

NOTE: Personal income is the income received by persons from all sources, that is, from participation in production, from transfer payments from government and business, and from government interest, which is treated like a transfer payment. Personal income is the sum of private and government wage and salary disbursements, other labor income, farm and nonfarm proprietors' income, rental income of persons, personal dividend income, personal interest income, and transfer payments, less personal contributions for social insurance. Personal income is measured before the deduction of personal income taxes and other personal taxes and is reported in current dollars (no adjustment is made for price changes).

Per capita personal income is the total income of residents (for the year) divided by the resident population as of July 1.

SOURCE: United States Department of Commerce, Bureau of Economic Analysis, COMMERCE NEWS (BEA 83-47), September 6, 1983.

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# KENTUCKY ECONOMY
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December 1983
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# KCEA Review and Forecast

by Charles W. Hultman*

The strength of national economic recovery and the extent to which it will affect developments in the Commonwealth are of major interest to Kentuckians. These two factors have an important bearing on the ability of the public and private sectors of the Kentucky economy to bring increases in production, employment, consumer incomes, and tax revenues.

*The strength of national economic recovery.* Real gross national product (GNP) is projected by Data Resources Inc. (from the December, 1983 forecast), to have increased at a moderate rate of about 3.4 percent in 1983, the first full year of expansion following the upturn in late 1982. This growth rate is impressive when compared with a 1.9 percent decline in real output in 1982; it is approximately in line with a composite of seven previous cycles of the post World War II period.

The moderate growth rate of 1983 is the result of several offsetting factors including a backlog of demand that stimulated purchases of housing and cars; a high level of interest rates that depressed consumer and business spending; a large federal deficit that affected business confidence; and the failure of growth in several key industries to bring expected effects in many related industries. Much of the national economic growth occurred as a result of higher consumer expenditures, increased inventory investment, expanded residential construction, and increased defense spending. A negative influence was exerted by the decline in the net export position of the United States.

National recovery is projected to continue with real GNP rising at a 5.4 percent rate in 1984 and a more moderate 3.2 percent rate in 1985. Unemployment would decline gradually from a 9.5 percent rate in 1983 to 8.1 percent in 1984 and 7.7 percent in 1985. The inflation rate (as measured by the Consumer Price Index) would rise slightly to almost 5 percent in 1984 and 1985 as compared with about 3.2 percent in 1983. The federal budget deficit is potentially a more serious problem at a projected figure of $174 billion in 1984 and $192 billion in 1985.

*Implications for Kentucky.* Improvement is evident in the Kentucky economy although the recovery is not as strong as that reflected in the national economy. State tax receipts, including individual income and sales receipts, have increased somewhat—an indication of a rising level of income and demand. Increased activity is also apparent in house construction and the automobile and related industries.

Although Kentucky's unadjusted monthly unemployment rate showed improvement during much of 1983, the unemployment rate has actually increased since the beginning of 1983 if allowances are made for seasonal factors. The adjusted monthly rate has increased gradually every month from 10.59 percent in January of 1983 to 11.53 percent in September of 1983. In addition, total employment of residents in the state was down about 2 percent for the third quarter of 1983 as compared with the equivalent quarter for 1982.

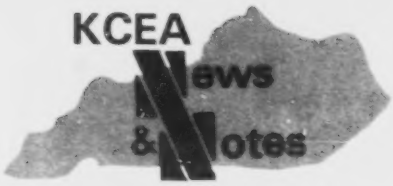
The insured unemployment rate (both adjusted and unadjusted) declined during 1983. However, a decline in the covered employment since the beginning of the year suggests that many workers exhausted their unemployment benefits and subsequently have not been able to find new jobs.

A slow improvement in labor usage is not unusual during periods of economic recovery and seems to have characterized Kentucky during much of 1983. However, it is expected that sustained national recovery, which is suggested by various indicators including the Composite Index of Leading Indicators, will lead to a declining share of Kentuckians remaining unemployed in 1984 and 1985.

The long term growth potential available to Kentucky and to the nation is suggested by recently-released Bureau of Labor Statistics projections (*Monthly Labor Review*, November 1983) (Table 1). If Kentucky follows the national trend through the mid 1990s, over one half of the new jobs created (during the period 1982-1995) will be in wholesale and retail trade and in "other" services. The latter category is a miscellaneous services sector which includes medical care, business services, professional services, hotels and personal services. Manufacturing employment will expand

*(continued on page 10)*

*Charles W. Hultman is Chairman of the KCEA and Associate Dean for Research and Extension, College of Business and Economics, University of Kentucky.*




Professor Charles W. Hultman, who has served as Chairman of the Kentucky Council of Economic Advisors (KCEA) and Associate Dean for Research and Extension of the College of Business and Economics, University of Kentucky, since 1976, has resigned from these positions, effective January 1, 1984. Professor Hultman returns to full-time teaching and research in the Department of Economics, University of Kentucky.

During the past seven and a half years, the KCEA has contributed a range of services to the Commonwealth. With Dr. Hultman's support and participation, this quarterly publication, *Kentucky Economy: Review & Perspective*, was initiated; numerous aspects of the Kentucky economy have been analyzed in the *Annual Reports*, *Policy Papers*, and *Studies in Applied Economic Research* series; the Kentucky Economic Information System became a publicly accessible resource; and a variety of research projects were undertaken and the results disseminated.

The staff of the KCEA extends its appreciation and best wishes to Dr. Hultman.

* * *

The composition of the 1983 *Annual Report* of the Kentucky Council of Economic Advisors has been completed and the volume is in the final stages of technical preparation as this issue of *Review & Perspective* goes to press. The 1983 report has been written by Dr. Don M. Soule, with the assistance of Frances E. Ross. Dr. Soule has designed a new format for the report, which is divided into thirteen sections. These cover most of the major aspects of the Kentucky economy, and some aspects of the regional economies of the Commonwealth, for the thirteen year period, 1970-82. Each section has text, data tables, and computer-produced graphical illustrations of the data.

An order form for the *Kentucky Council of Economic Advisors Annual Report—1983* can be found on page 12 following. Single copies of the *Annual Report* will be furnished, upon request, at no charge to persons in government, academia, media, or in the nonprofit sector. There will be a charge of $10.00 per copy, for all copies sent to persons in the for-profit private sector, and for all copies sent to all others beyond the first complimentary copy.

* * *

Dr. Merlin M. Hackbart, Professor of Economics and Public Administration, University of Kentucky, has been named by Dean Richard W. Furst, College of Business and Economics, to the newly defined position of Associate Dean for Graduate Studies and Research of the College of Business and Economics, University of Kentucky, effective January 1, 1984. Professor Hackbart will also serve as Chairman of the KCEA.

Professor Hackbart received the PhD in Economics from Kansas State University in 1968 and came to the University of Kentucky in 1973. Since coming to the University, Dr. Hackbart has served in various capacities including Executive Director of the KCEA and Director of the James W. Martin Center for Public Administration. Most recently

*(continued on page 10)*

**KCEA MEMBERS:**

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Associate Dean for Research
College of Business and Economics
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Executive Director and
Professor of Economics
University of Kentucky

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This publication provides current information concerning the Kentucky economy. It is a forum for the publication of short expository articles, analyses of some aspect of the Kentucky economy, forecasts of the Kentucky economy, and tables of selected data chosen as indicators of developments in the Kentucky and national economies. The publication also sometimes includes information about enhancements to the Kentucky Economic Information System (KEIS) and articles dealing with information systems in general.

Articles submitted for publication should be sent to the Editor at the address given above. All submissions will be reviewed independently by persons recognized as knowledgeable in the specific subject discussed. However, the ultimate responsibility for content rests with the author.

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# KENTUCKY EDUCATIONAL FINANCE: METHODS and PROBLEMS

by Don M. Soule*

Complete local government financing of education results in great inequality among localities in the amount, type, and quality of service, mainly because taxable values differ widely among localities in terms of averages per pupil. Also, the strength of desire for educational services may vary among districts. But even if the desire were equally strong among districts, the very large differences in taxable values per pupil would result in unequal service. Over the years, as the need for less inequality of educational service was recognized over entire states, support arose for giving state aid to local school districts. By the early 1950s, Kentucky had a state aid program that gave an equal number of dollars per pupil among districts. Kentucky later adopted a minimum foundation program and fully financed it following adoption of the sales tax, effective July 1, 1960.

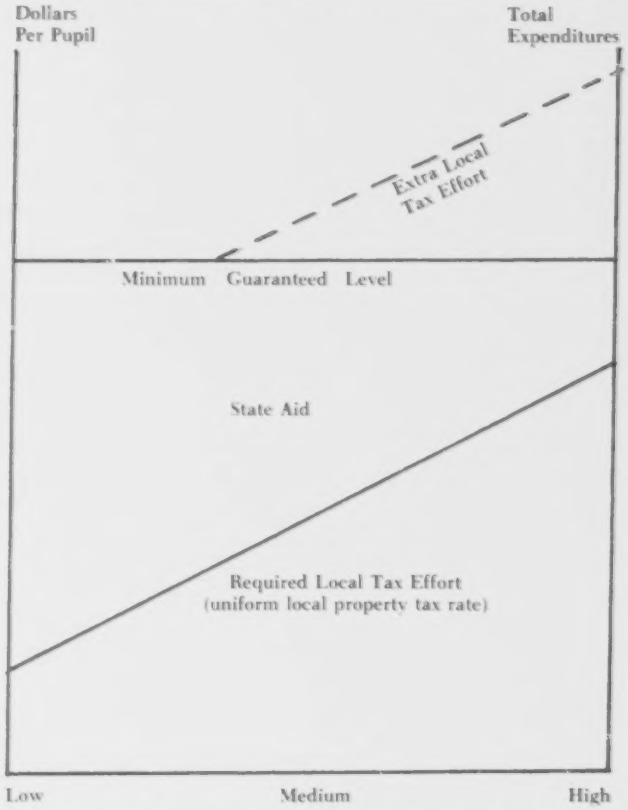
This brief review of Kentucky educational finance describes the minimum foundation program and identifies problem areas as they relate to the objective of reducing the degree to which educational services are provided unequally among local areas that differ in economic ability and among students whose educational needs differ in amount, type, and cost.[1] This review is intended not as a policy proposal but instead as background information for public discussion.

### Minimum foundation program

The minimum foundation method was developed early in this century and has been widely adopted among states. The basic original plan was: to establish a state guaranteed floor of expenditures, per pupil, throughout the state; to finance part of the program by a local tax on property that was uniform among localities in percentage rate but not, of course, in dollars of local revenue produced per pupil; and to supplement the locally raised revenue by state aid sufficient to raise the locally available revenues (local plus state) to the state guaranteed level of expenditures.

The basic method of a minimum foundation program is illustrated in Figure 1. The horizontal axis shows school districts arrayed from low to high according to the per pupil value of taxable property, with property comparably valued at estimated market value. The vertical axes show locally produced revenue, state aid, and the state minimum guaranteed level of expenditures. Note that in the "poor" districts, most of the minimum guaranteed level of expenditures is financed from state aid and very little from the local property tax. The opposite is true in the "rich" districts. A uniform percentage tax rate produces greatly different amounts of revenue per pupil among districts. Note also that even the rich districts receive some state aid. This probably has two purposes. One is to gather voter support while the other is to supplement local taxation with state taxation in all districts.

FIGURE 1—A TYPICAL MINIMUM FOUNDATION PROGRAM*




School Districts Arrayed from Low to High According to Per Pupil Value of Taxable Property

*Actual foundation programs vary among states.

Also note in Figure 1 that total expenditures among districts are not at the minimum guaranteed level but instead are higher than that level in some districts. Minimum foundation programs often allow school districts to make additional expenditures provided that local tax revenue exceeds the required local effort. (Also, expenditures from federal-to-local aid is in addition to local and state funds.) This "extra local effort" typically is voluntary on the part of the district, is not supplemented by state aid, and is used to provide "enrichment" services. In Kentucky, some of the extra local tax effort is supplemented by state aid in the "power equalization" program adopted in 1976. This program is explained later in the text.

*Don M. Soule is (Acting) Executive Director of the KCEA and Professor of Economics, University of Kentucky.

The main advantages of a minimum foundation program are that it raises the level of expenditures, uses state taxes as well as local taxes, and achieves uniform educational expenditures among localities *at the guaranteed minimum*. The income redistributional (equalizational) effects of this method deserve special explanation. Funds are in effect transferred from richer to poorer districts by two separate and distinct forces. The first cause of equalization is obvious—the amounts of state aid per pupil vary widely among districts and in favor of the poorer districts. The other cause of equalization is very important but not at all obvious. The state funds used for aid are raised by state tax laws that are applied uniformly throughout the state. But these uniformly applied state tax laws produce amounts of tax revenue, per pupil, that differ widely among the school districts. Consequently, a poor district that receives most of its educational funds from state aid may contribute very little, per pupil, to the state tax revenue used to pay the aid. At the extreme, a district could be so poor as to generate virtually no local or state government tax revenue from its citizens and businesses while receiving almost all of its educational budget from state aid.

*Deficiencies in Kentucky's Minimum Foundation Program*. While adoption of the minimum foundation program was a great step forward for Kentucky, there nevertheless were many remaining deficiencies and inadequacies, some of which were remedied in later years. These problem areas are briefly described.

(1) The basic unit for measurement in the Kentucky program is the classroom unit whereas in some other states the pupil is the basic unit. The per pupil method is thought to be superior in several respects, such as: greater precision because the unit of measurement is smaller, and greater ease in recognizing the differences that exist between types of students in both the need for services and the costs of these services. Also, use of the classroom unit method has been associated with the "closed" instead of "open" ended nature of some special programs, a problem that is discussed later.

(2) Costs of providing the guaranteed minimum level of services tend to increase over the years, especially with inflation, and the various dollar definitions in the program therefore are adjusted upward over the years. But insofar as these adjustments are inadequate, the amount of service provided by the guaranteed minimum expenditure level tends to fall.

(3) Uniformity at the guaranteed minimum level is in terms of dollars of expenditure per classroom unit. Educational service at the minimum level would be uniform among districts (per classroom unit) only if educational costs were equal among districts. But insofar as costs differ among districts in providing the same amount, type, and quality of service, uniformity of expenditures can result in nonuniformity of services. It seems reasonable to expect that the ingredients of educational service vary in price among local areas in Kentucky because price differences are found for many of the goods and services purchased by households and businesses. But attempts to identify and measure these alleged cost differences have given unsatisfactory results, and to date there have been few if any adjustments in the Kentucky program for these possible cost differences. The effects of this imprecision are partly avoided by allowing local school districts to make additional local expenditures above the guaranteed minimum if financed from extra local tax revenue. That is, additional need for expenditures might be caused by higher costs for identical service, and this may cause local districts to put forth extra local tax effort.

(4) Another controversial area concerns possible differences in needs for service, among districts. Suppose, for example, that one district has students who live in low value homes and have parents with limited educational opportunity, whose work requires little educational attainment, and pays lower wages, while another district has students who live in more luxurious homes and have college educated parents earning higher salaries. These two groups of students would differ not only in the quality of facilities to which they are accustomed but also, it could be argued, probably will differ in educational background, outlook, and in types of work in later life. These differences could allow some critics to argue, therefore, that identical educational service (amount, type, and quality) would not be appropriate.

A program completely financed by state government probably could not legally (constitutionally) provide unequal service among districts, even if such were desirable. And even if possible, how could the proper differences be determined? The problem thus presented can be likened to the case of a family wishing to entertain both its rich and poor relatives at dinner. If all are entertained at the same dinner party, it would be difficult not to have the same menu. But if the two groups are invited to different parties, one dinner could feature steak and the other a casserole.

In educational finance, the public's solution to this problem has been to allow local districts to provide whatever additional services they desire, provided they raise extra tax revenue. Thus, the state guaranteed program is funded equally among districts; whatever inequality exists is the result of unequal local tax effort; and local government differences are not regarded as violating the state constitution. In defense of this method, it can be said that a traditional function of the rich has been to set standards for those who would imitate them. Over the years, residents of poor districts can demand, through legislation, that their public schools be adjusted upward toward levels felt proper in the rich districts.

(5) The minimum foundation program, in most respects, assumes that the need for educational services is identical among students. But obvious differences exist, such as: grade levels; vocational education; mentally or physically handicapped students; and culturally deprived students. Over the years, the Kentucky program has been modified because of these differences. Some recognition has been made for grade differences, and quite a bit of adjustment has been made for vocational education and for special education programs for the handicapped. Little attention has been given to culturally deprived students. Expenditure increases have been noteworthy for the vocational and special education programs, but deficiencies have been

associated with the "closed-end" nature of the financing method. This is explained.

Using special education as an example, Kentucky's method for financing these units has been to provide funds for a particular total number of special classroom units for the entire state for a budget period. These units were assigned to particular school districts which both provided the service and received the state aid. There potentially could be students with special needs who did not attend special programs because there were not enough such units to accommodate all students. Students sometimes were required to commute among districts to attend special programs.

An alternate method for financing these units is to define special classroom units in terms of size, programs, and guaranteed expenditures and to provide funds to any and all districts for as many classroom units as they can populate with special students. This, however, is an "open-ended" program with regards to financing. The state government does not know in advance how much the special education program will cost for the budget period, and any school district can get more state money by finding special students who previously had not been served. Kentucky has in recent years moved toward the open-ended type of special and vocational education programs; more dollars have been made available for these students by the method of defining a special or vocational classroom unit as consisting of fewer students than the regular units. It is still recognized, however, that a conflict exists between students' needs for service and the state government's need for expenditure planning and control.

Another aspect of the special unit programs has been the alleged practice of reducing the number of special units assigned to some districts (usually the richer ones) that already had special units financed from extra local tax revenue. This practice, it is alleged, placed a penalty on districts that had provided more and better services by establishing programs before other districts had them or before the state recognized the needs by including these services in the minimum foundation program. (Note that the term "alleged" is used above because good-faith differences of opinion exist regarding interpretation of these conditions.)

*Adjustments to the original foundation program.* Over the years, the Kentucky minimum foundation program has been modified in many ways, some of which are quite important and so are discussed here.

(1) As a result of legislative changes in 1966, school districts were allowed to increase their locally raised tax revenue by taxes other than the property tax. Three "permissive" taxes were provided, although a particular locality could use only one of the three taxes (up to 0.5 percent occupational license tax; up to 20 percent tax based on the taxpayer's state income tax amount; and up to 3 percent tax based on the customers' utility bills). Most districts choosing one of these taxes have selected the utility tax because of its much greater ease of administration. The revenues from these taxes could not be counted in the "required local effort" and they were not matched with state aid, under the original foundation program. Some support has been shown recently for allowing districts to use more than one of these taxes, but no permission has been legislated.

(2) The former required local tax effort, which was essentially a uniform percentage of the estimated market value of taxable property, was changed effective in fiscal year 1978 to a state tax defined as 30 cents per $100 of taxable property value. (This state property tax is deposited into the state's General Fund and is not earmarked for school purposes. Also, expenditures above the state guarantee can still be financed from local tax revenue and from federal-to-local aid.) There was no change apparent to the individual taxpayer because of this legislation because total (state plus local) tax liabilities were generally unchanged. But replacing the local required effort with the state property tax caused the foundation program to be totally financed from state revenue. Also, it became easier to recognize which school districts have low or high property tax rates. For example, a district that previously had a school property tax rate of 35 cents is reported as having a rate of only 5 cents.

(3) Property tax rate limits have existed in Kentucky for generations, but two important changes were made in the last two decades. Around 1965, when the courts ruled that assessed values of property be raised to full market value, the General Assembly required that the property tax rate in each locality could not produce more revenue under the new and higher taxable values than under the former values. (These rolled-back rates could be increased by 10 percent in each of two years, although not all local governments chose to make those increases.)

Another set of rate limits was introduced by House Bill 44 in the 1979 Special Session of the General Assembly. This bill established a continuing method for downward adjustment in property tax rates. Under this program, the increased taxable value assigned to previously taxed real property cannot be the cause of tax revenue increases in excess of 4 percent. Each year, in order to set the property tax rate, the first step is to compute a rate (the compensating rate) that would produce the same amount of total revenue as in the previous year from "old" real property (that is, real property on the rolls in both years and unchanged except for higher values). With assessed values being raised to keep up with rising market values, the application of unchanged tax rates might cause property tax revenues to increase by, for example, 10 percent per year. But with House Bill 44, the tax rate effectively is reduced to provide for unchanged revenue from old real property. Then, however, a locality can choose to increase this compensating rate to produce as much as 4 percent increased revenue from old real property, provided a hearing is held. To raise the rate by more than 4 percent requires voter approval at an election. These tax rates are applied to both old and new real property.

The purpose of House Bill 44 was to prevent what were interpreted to be excessive increases in property tax liabilities caused by large, market-determined increases in property values. But the practical result is that both state

*(continued on page 8)*

# selected indicators OF ECONOMIC A

These tables of selected indicators of economic activity were prepared by a special-purpose program of the Kentucky Economic Information System. The data in the tables are reported figures which were obtained from a variety of state and federal agencies, as well as from private firms.

## UNITED STATES DATA

| | July 1983 | Aug. 1983 | Sept. 1983 | Qtr. III 1983 | % Chg. 83-II 83-III | % Chg. 82-III 83-III |
|---|---|---|---|---|---|---|
| CONSUMER PRICE INDEXES (1967=100, NOT SEASONALLY ADJUSTED) | | | | | | |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, NEW DEFINITION | 299.40 | 300.30 | 301.00 | 300.47 | 1.20 | NA |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, FOOD AND BEVERAGES | 284.70 | 284.90 | 285.30 | 284.97 | 0.03 | 1.68 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, HOUSING (INCL RENTAL EQUIV) | 324.50 | 324.80 | 326.40 | 325.23 | 1.09 | NA |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, APPAREL AND UPKEEP | 193.00 | 193.50 | 200.40 | 192.57 | 0.94 | 2.85 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, TRANSPORTATION | 300.30 | 302.40 | 303.20 | 302.17 | 2.23 | 2.13 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, MEDICAL | 357.70 | 360.00 | 361.20 | 359.63 | 1.40 | 5.97 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, ENTERTAINMENT | 246.00 | 246.60 | 246.50 | 246.70 | 0.77 | 4.98 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, OTHER | 290.50 | 289.80 | 294.40 | 290.30 | 2.30 | 11.35 |
| CONSUMER PRICE INDEX, ALL URBAN CONSUMERS, SPECIAL INDEX: ENERGY | 430.10 | 429.00 | 429.30 | 429.73 | 2.43 | 1.26 |
| PRODUCER PRICE INDEXES (1967=100, NOT SEASONALLY ADJUSTED) | | | | | | |
| PRODUCER PRICE INDEX, ALL COMMODITIES | 303.00 | 304.90 | 305.50 | 304.47 | 0.98 | 1.50 |
| PRODUCER PRICE INDEX, ALL FINISHED GOODS | 285.70 | 284.20 | 285.10 | 285.63 | 0.54 | 1.36 |
| PRODUCER PRICE INDEX, FINISHED CONSUMER GOODS | 285.20 | 285.60 | 285.20 | 285.30 | 0.63 | 1.07 |
| PRODUCER PRICE INDEX, INTERMEDIATE MATERIALS | 313.50 | 314.40 | 315.20 | 314.37 | 1.44 | 3.15 |
| PRODUCER PRICE INDEX, INTERMEDIATE MATERIALS FOR MANUFACTURING | 293.40 | 294.00 | 294.30 | 294.83 | 1.05 | 3.92 |
| PRODUCER PRICE INDEX, CRUDE MATERIALS | 320.60 | 326.40 | 328.30 | 325.27 | 5.09 | 1.77 |
| PRODUCER PRICE INDEX, CRUDE FOODSTUFFS AND FEEDSTUFFS | 249.00 | 259.00 | 254.40 | 254.20 | 0.37 | 3.95 |
| PRODUCER PRICE INDEX, BITUM. COAL, INDUSTRIAL, SPOT(1967=100) | 439.00 | 444.10 | 446.00 | 442.97 | 4.48 | 0.67 |
| PRODUCER PRICE INDEX, BITUM. COAL, INDUSTRIAL, CONTRACT(JUNE76=100) | 150.40 | 149.40 | 150.20 | 150.00 | 0.40 | 0.87 |
| CONSUMER PRICES: ENERGY (U.S. CITY AVERAGE) | | | | | | |
| AVG PRICE FOR UTILITY (PIPED) GAS, PER 40 THERMS | 27.15 | 27.15 | 27.40 | 27.29 | 0.37 | 16.76 |
| AVG PRICE FOR UTILITY (PIPED) GAS, PER 100 THERMS | 64.60 | 64.53 | 64.95 | 64.69 | 1.10 | 16.97 |
| AVG PRICE FOR ELECTRICITY, PER 500 KWH | 39.52 | 39.59 | 39.80 | 39.56 | 4.15 | 1.07 |
| AVG PRICE FOR FUEL OIL #2 (HOME HEATING OIL), PER GALLON | 1.08 | 1.08 | 1.09 | 1.08 | 0.00 | 9.09 |
| AVG PRICE, GASOLINE, ALL TYPES, PER GALLON | 1.27 | 1.27 | 1.26 | 1.27 | 2.59 | 3.19 |
| AVG PRICE, GASOLINE, LEADED REGULAR, PER GALLON | 1.20 | 1.20 | 1.19 | 1.20 | 2.68 | 4.10 |
| AVG PRICE, GASOLINE, UNLEADED REGULAR, PER GALLON | 1.28 | 1.28 | 1.28 | 1.28 | 2.56 | 2.40 |
| AVG PRICE, GASOLINE, LEADED PREMIUM, PER GALLON | 1.44 | 1.44 | 1.40 | 1.43 | 1.93 | 1.40 |
| LABOR FORCE (SEASONALLY ADJUSTED, MILLIONS OF PERSONS) | | | | | | |
| LABOR FORCE, TOTAL (INCL RES ARMED FORCES) | 114.54 | 113.94 | 114.06 | 113.85 | 0.91 | 0.91 |
| LABOR FORCE, CIVILIAN (EXCL RES ARMED FORCES) | 111.87 | 112.28 | 112.37 | 112.17 | 0.91 | 1.39 |
| EMPLOYMENT, RESIDENT ARMED FORCES | 1.66 | 1.66 | 1.69 | 1.68 | 0.66 | 0.18 |
| EMPLOYMENT, TOTAL CIVILIAN BY RESIDENCE (EXCL ARMED FORCES) | 101.29 | 101.55 | 101.94 | 101.60 | 1.67 | 2.00 |
| EMPLOYMENT, AGRICULTURE | 3.53 | 3.49 | 3.29 | 3.44 | 0.45 | 0.67 |
| EMPLOYMENT, NONAGRICULTURAL | 97.76 | 98.07 | 98.65 | 98.16 | 1.71 | 2.05 |
| UNEMPLOYED, CIVILIAN, TOTAL | 10.59 | 10.20 | 10.42 | 10.57 | 5.80 | 4.12 |
| UNEMPLOYMENT RATE, TOTAL LABOR FORCE | 9.30 | 9.40 | 9.19 | 9.28 | 6.65 | 4.98 |
| UNEMPLOYMENT RATE, CIVILIAN LABOR FORCE | 9.43 | 9.53 | 9.28 | 9.42 | 6.65 | 5.41 |
| OTHER SELECTED NATIONAL INDICATORS: | | | | | | |
| U.S. GROSS NATIONAL PRODUCT (B $) (% CHG AT ANNUAL RATE) | NA | NA | NA | 3362.20 | 11.50 | 8.78 |
| U.S. REAL GROSS NATIONAL PRODUCT (B 72$) (% CHG AT ANNUAL RATE) | NA | NA | NA | 1553.40 | 7.65 | 4.56 |
| PERSONAL INCOME, TOTAL, SEASONALLY ADJUSTED (B $) | 2754.00 | 2754.40 | 2781.60 | 2761.90 | 11.17 | 6.58 |
| COMPOSITE INDEX OF 12 LEADING INDICATORS (1967=100) | 159.70 | 158.90 | 160.20 | 159.10 | 2.80 | 16.47 |
| INDEX OF INDUSTRIAL PRODUCTION, SEASONALLY ADJUSTED (1967=100) | 149.70 | 151.00 | 153.90 | 151.80 | 5.08 | 9.67 |
| INTEREST RATE, YIELD ON 3-MONTH TREASURY BILLS | 9.11 | 9.39 | 9.05 | 9.19 | 9.11 | 5.37 |
| PRIVATE HOUSING UNITS AUTH, 16000 PERMIT-ISSUING PLACES (SADJ THOU) | 1700.00 | 1662.00 | 1578.00 | 1646.67 | 0.65 | 43.47 |
| TOTAL INSTALLMENT CREDIT OUTSTANDING AT END OF MONTH (B $) | 359.60 | 363.60 | 367.60 | 367.60 | 4.13 | 9.93 |

# ACTIVITY

## KENTUCKY DATA

| | July 1983 | Aug. 1983 | Sept. 1983 | Qtr. III 1983 | % Chg. 83-II 83-III | % Chg. 82-III 83-III |
|---|---|---|---|---|---|---|
| LABOR FORCE (NOT SEASONALLY ADJUSTED, THOUSANDS) | | | | | | |
| LABOR FORCE, TOTAL CIVILIAN | 1637.70 | 1647.90 | 1658.10 | 1646.57 | 0.73 | 1.87 |
| EMPLOYMENT, TOTAL, BY PLACE OF RESIDENCE | 1450.20 | 1472.70 | 1487.50 | 1470.13 | 0.46 | 2.42 |
| EMPLOYMENT, AGRICULTURAL | 66.20 | 79.60 | 79.90 | 75.23 | 16.10 | -0.09 |
| EMPLOYMENT, TOTAL NON-AGRICULTURAL | 1384.00 | 1393.10 | 1407.60 | 1394.90 | 1.02 | 2.44 |
| UNEMPLOYMENT RATE | 11.40 | 10.50 | 10.10 | 10.72 | -2.54 | 3.99 |
| EMPLOYMENT, TOTAL NON-AGRICULTURAL WAGE AND SALARY | 1150.20 | 1155.90 | 1174.90 | 1161.00 | 0.61 | 0.46 |
| EMPLOYMENT, BITUMINOUS COAL & LIGNITE MINING (SIC 12) | 45.80 | 45.30 | 45.50 | 45.53 | -0.87 | 5.67 |
| EMPLOYMENT, CONTRACT CONSTRUCTION | 54.70 | 56.80 | 55.60 | 55.87 | 10.15 | 4.04 |
| EMPLOYMENT, TOTAL MANUFACTURING | 246.10 | 248.30 | 250.50 | 248.30 | 0.98 | 1.54 |
| EMPLOYMENT, MANUFACTURING, DURABLE | 132.40 | 134.10 | 136.10 | 134.20 | 1.46 | 2.04 |
| EMPLOYMENT, MANUFACTURING, NON-DURABLE | 113.70 | 114.20 | 114.40 | 114.10 | 0.41 | 0.96 |
| EMPLOYMENT, TRANSPORTATION, COMMUNICATIONS & PUBLIC UTILITIES | 62.90 | 60.40 | 63.50 | 62.20 | 0.21 | 5.04 |
| EMPLOYMENT, WHOLESALE & RETAIL TRADE | 261.20 | 263.50 | 261.70 | 262.13 | 0.78 | 0.41 |
| EMPLOYMENT, FINANCE, INSURANCE & REAL ESTATE (SIC 60-67) | 52.30 | 51.90 | 51.70 | 51.97 | 0.45 | 0.58 |
| EMPLOYMENT, SERVICES (SIC 70-80) | 224.10 | 224.50 | 222.80 | 223.47 | 0.33 | 2.95 |
| EMPLOYMENT, CIVILIAN GOVERNMENT | 197.90 | 199.90 | 219.40 | 205.73 | 7.76 | 1.23 |
| EMPLOYMENT, STATE & LOCAL GOVERNMENT | 155.50 | 159.40 | 176.90 | 165.27 | 9.41 | 1.84 |
| HOURS AND EARNINGS OF PRODUCTION WORKERS IN MANUFACTURING | | | | | | |
| AVG WEEKLY HOURS, PROD WORKERS, TOTAL MANUFACTURING | 39.00 | 38.90 | 39.00 | 39.23 | 0.35 | 2.17 |
| AVG WEEKLY HOURS, PROD WORKERS, MANUFACTURING DURABLES | 39.40 | 39.80 | 39.70 | 39.30 | 0.68 | 3.97 |
| AVG WEEKLY HOURS, PROD WORKERS, NON-DURABLE MANUFACTURING | 38.40 | 38.90 | 40.00 | 38.10 | 1.59 | 0.00 |
| AVG HOURLY EARN, PROD WORKERS, TOTAL MANUFACTURING | 8.81 | 8.76 | 8.83 | 8.80 | 1.04 | 4.64 |
| AVG HOURLY EARN, PROD WORKERS, MANUFACTURING DURABLES | 9.33 | 9.38 | 9.49 | 9.41 | 0.94 | 2.17 |
| AVG HOURLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING | 8.02 | 8.07 | 7.98 | 8.02 | 1.14 | 5.05 |
| AVG WEEKLY EARN, PROD WORKERS, TOTAL MANUFACTURING | 343.59 | 340.76 | 344.41 | 345.36 | 0.76 | 6.91 |
| AVG WEEKLY EARN, PROD WORKERS, MANUFACTURING DURABLES | 367.54 | 373.24 | 376.75 | 369.71 | 0.73 | 6.84 |
| AVG WEEKLY EARN, PROD WORKERS, NON-DURABLE MANUFACTURING | 307.97 | 313.90 | 319.20 | 313.70 | 0.73 | 5.82 |
| MINING (MILLIONS OF TONS, MILLIONS OF TAX DOLLARS) | | | | | | |
| BITUMINOUS COAL & LIGNITE, PHYSICAL OUTPUT, EASTERN KY, TOTAL | 9.30 | 9.05 | 9.50 | 27.73 | 15.12 | 8.94 |
| BITUMINOUS COAL & LIGNITE, PHYSICAL OUTPUT, WESTERN KY, TOTAL | 3.46 | 3.24 | 3.33 | 9.80 | 1.41 | 3.39 |
| AVG HOURLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING | 14.99 | 14.83 | 14.72 | 14.75 | 1.12 | 1.80 |
| AVG WEEKLY EARN, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING | 576.00 | 447.29 | 594.28 | 459.78 | 3.80 | 23.52 |
| AVG WEEKLY HOURS, PROD WORKERS, BITUMINOUS COAL & LIGNITE MINING | 41.00 | 40.40 | 41.30 | 31.17 | 4.00 | 21.45 |
| TAX RECEIPTS, COAL SEVERANCE, CONSOLIDATED, TOTAL | 13.49 | 12.87 | 15.00 | 41.36 | * | 38.99 |
| HOUSING (MILLIONS OF $, NO. OF PRIVATE RESID. UNITS--NOT SEAS ADJ) | | | | | | |
| VALUE OF CONSTRUCTION CONTRACTS, RESIDENTIAL & NON-RES | 179.10 | 201.40 | 183.10 | 560.50 | 16.37 | 2.54 |
| HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTHORIZED, 1 UNIT | 5,500 | 5,900 | 5,400 | 16,800 | 1.36 | 49.57 |
| VALUATION, HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTH, 1 UNIT | 53.43 | 57.00 | 52.00 | 162.42 | 2.74 | 58.99 |
| HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTHORIZED, TOTAL | 6,000 | 6,400 | 5,900 | 18,300 | 0.00 | 58.13 |
| VALUATION, HOUSING UNITS, PRIVATE STRUCTURES, PERMIT AUTH, TOTAL | 58.4 | 63.26 | 63.41 | 185.07 | 16.63 | 84.90 |
| NET LOANS MADE & ACQUIRED BY KY. SAVINGS & LOAN ASSOCIATIONS | 4.84 | 53.04 | 54.84 | 112.74 | 89.47 | 110.90 |
| RETAIL SALES (MIL $, 000 CARS) | | | | | | |
| TAX RECEIPTS, GENERAL FUND, SALES AND GROSS RECEIPTS | 69.0 | 66.53 | 77.41 | 212.69 | * | 11.72 |
| NEW PASSENGER CAR REGISTRATIONS, TOTAL, NOT SEAS. ADJ. | 100.3 | 90.9 | NA | NA | NA | NA |
| SELECTED STATE GOVERNMENT RECEIPTS (MIL $) | | | | | | |
| TAX AND NONTAX RECEIPTS, GENERAL FUND, TOTAL | 170.44 | 191.64 | 180.11 | 536.08 | * | 5.45 |
| TAX RECEIPTS, GENERAL FUND, SALES & USE TAXES, TOTAL | 87.00 | 100.51 | 91.74 | 183.95 | * | 11.11 |
| TAX RECEIPTS, GENERAL FUND, INCOME TAX, INDIVIDUAL | 57.10 | 58.80 | 53.00 | 185.84 | * | 1.00 |
| TAX RECEIPTS, GENERAL FUND, INCOME TAX, CORPORATION | 6.70 | 6.71 | 13.00 | 43.29 | * | 1.50 |
| TAX RECEIPTS, STATE ROAD FUND, STATE SHARE | 29.11 | 39.14 | 28.00 | 96.14 | * | 2.31 |
| TAX RECEIPTS, STATE ROAD FUND, MOTOR FUELS TAXES, NORMAL | 17.43 | 17.56 | 15.04 | 49.93 | * | 1.01 |
| TAX RECEIPTS, STATE ROAD FUND, MOTOR VEHICLE USAGE TAX | 10.58 | 11.34 | 7.64 | 29.44 | * | 1.03 |

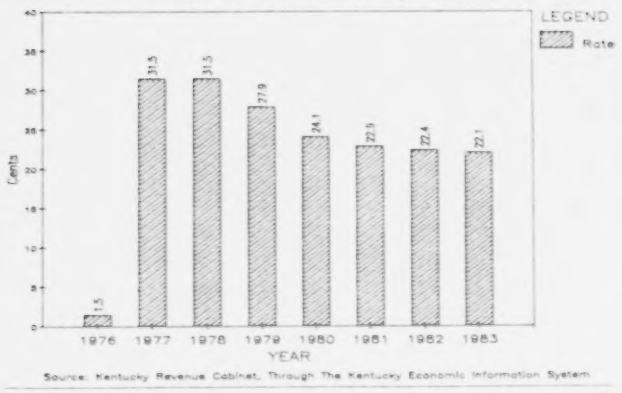
PRIVATE SOURCES FOR THE ABOVE DATA INCLUDE:
F. W. DODGE DIVISION (MCGRAW-HILL INFORMATION SYSTEMS COMPANY):
VALUE OF CONSTRUCTION CONTRACTS;
R. L. POLK & COMPANY, NEW CAR REGISTRATIONS (NA FOR 1983, SEE

NOTE: THE DATA ON PERMIT-AUTHORIZED CONSTRUCTION COME FROM THE BUREAU OF THE CENSUS, U.S. DEPARTMENT OF COMMERCE AND REPRESENT THE KENTUCKY PORTION OF THE NATIONAL SURVEY OF 16,000 PERMIT-ISSUING PLACES.

* = QUARTER TO QUARTER COMPARISONS NOT MEANINGFUL DUE TO SEASONAL VARIATION

*(continued from page 5)*

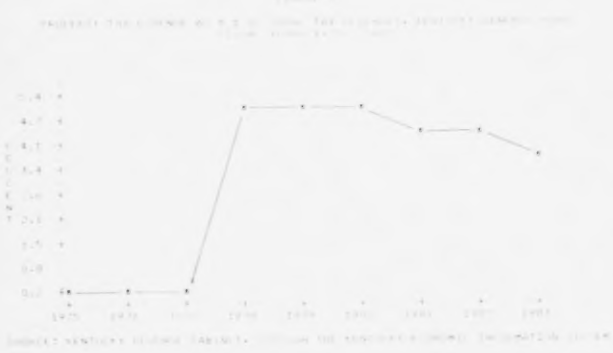
FIGURE 2
Real Property Tax
State Rate Per $100




Source: Kentucky Revenue Cabinet, Through The Kentucky Economic Information System

and local property tax yields from old real property can increase by a maximum 4 percent per year. Insofar as the costs of providing governmental services to old real property are rising at more than 4 percent per year, the expected results of House Bill 44 are a shrinkage of property tax rates and of the property tax as a percentage of total state-local tax revenue. The comparisons of state-level data presented in Figures 2 and 3 suggest that this shrinkage has occurred.

Some groups have argued that House Bill 44 is not restrictive because actual revenues from property taxation can increase by more than 4 percent because the total amount of taxable property increases over the years. While this is true as regards total revenue, the new property also requires services and these can cause state and local governments to experience total expenditure demands that exceed total revenue.



(4) When the former required local effort was changed to a state property tax, effective in fiscal year 1978, the foundation program was changed to include the "power equalization" concept. This new feature can best be explained by comparing it with state aid under the original minimum foundation program which had the required local effort provision. Under the original program, a district could not receive state aid unless its local property tax effort (essentially, tax amount as a percentage of market value of property) was at or above the state requirement. Thus, the aid program was compulsory. The voluntary part of the old program was that a district could make extra tax effort to finance extra services. This extra revenue could be from property tax rates above the required rate or from one of the three permissive taxes. But this extra local revenue was not supplemented by state aid. Mainly to encourage locally approved tax increases, the minimum foundation program was amended to include state aid related to the extra local effort. Possibly because of revenue inadequacy in state government, the power equalization program was only partially funded.

As first implemented, the power equalization program equalized among districts to an amount of revenue to be obtained from the first 5 cents of local property tax rate (the "extra" property tax). Districts with low per pupil amounts of taxable property would receive enough aid to give them a total amount (local tax revenue plus state aid) equal to the yield of the 5 cent tax rate in the district with the highest per pupil value of property (benchmark district). If, for example, the local 5 cent rate would yield $20 per pupil in a poor district but $80 in the benchmark district, the poor district would receive state aid of $60 per pupil to bring the total available amount to $80 in each district. Note that the benchmark district gets no power equalization aid. It was intended that the aid would be increased over the years so that higher levels of local tax rates would be equalized, such as the first 10 cents, first 15 cents, etc. Districts with small (or zero) levels of local rates receive little or no aid under this program, thereby creating an incentive for districts to use increased local property tax rates or to use one of the permissible non-property taxes sufficiently to receive the state aid available under the power equalization program.

There are legitimate reasons for allowing extra local expenditures financed by extra local tax effort. One reason, for example, is to allow indirectly for interdistrict differences in costs or service needs. Also, the power equalization program has the commendable objective of encouraging local school districts to make increased tax effort. But an expanded power equalization program would require increased amounts of state aid and possibly could divert revenue away from the state's minimum foundation program. The guaranteed minimum expenditure level, as a state total, must grow in dollar amount over the years because of inflation and expanded definitions of service needs (for example, reduced class size, mandatory kindergartens, longer school days and years, additional requirements for teacher certification, merit pay for superior teachers, and electronic computers for classroom use). It is possible, therefore, that greater emphasis on the power equalization program could lead to inadequacy of the minimum foundation program. Because the power equalization program reduces interdistrict expenditure inequality only if districts actually do make extra tax effort, and because the foundation program is a powerful instrument for reducing interdistrict inequality, too great expansion of the power equalization program could be regarded as a backward step in Kentucky's efforts to reduce expenditure inequality among school districts.

### Some problems of individual school districts

Most of the above explanation of educational finance in Kentucky concerns expenditure levels among districts and the degree to which the results of the foundation program reduce inequality among districts. Another set of issues is seen if educational finance is viewed from the point of view of a particular district. Some of these concerns are explained.

*Limits set by state laws.* Districts are limited in amounts of extra tax revenue they can raise because rates are limited for the property tax and the 1966 permissive taxes and they are denied use of other tax types. A district wishing to raise its expenditure level has several routes. First, it can enact one of the permissive taxes if not already used. Second, it can raise the property tax "compensating rate" by the full 4 percent each year, if not already doing so. Third, it can raise the property tax rate above the 4 percent increase by subjecting the question to the voters. Fourth, it can ask the voters for a special increase in the property tax rate to finance a school building. For the third and fourth options, the past experience has mainly been voter rejection. Thus, school districts are being squeezed in their ability to raise extra local revenue because of the 4 percent limit on property tax rate growth (which is inadequate if costs increase more than 4 percent) and the limits on use of other taxes.

*Districts with special needs.* If districts have expenditure needs that are not recognized in the minimum foundation program, these districts are expected to finance their special needs from extra local tax revenue. But as described above, their ability to do so is restricted. While this restriction applies generally among school districts, it probably differs in degree of severity because of possible cost and service-need differences among districts. A district that must pay high salaries to attract suitable teachers, or one with an unusually large percentage of special needs students, or one whose population expects a better and more varied offering of educational service—such districts can have inadequate revenue relative to expenditure needs. Without changes in state laws, such districts have virtually no recourse.

*Distribution of funds for vocational and special education.* Some districts had recognized the need for vocational and special education programs before the state minimum foundation program recognized this need. But when the state programs were expanded, the state in some cases gave fewer of the new units to districts already having units, meaning that these districts were shorted in distribution of the new units because they were already financing units out of extra local revenue. This was especially likely to happen in the more affluent districts.

### Use of funds within a district

Distribution of funds in the minimum foundation program is heavily influenced by pupil attendance. In a sense, each student in attendance generates a particular amount of state money for the district. One could question, therefore, whether one high school with 1,000 students has the same total amount of money spent on its programs as is the case for another high school with 1,000 students and in the same school district. Do uses of funds differ (that is, provide different programs) among schools in a district even if the total spent per average pupil is the same among schools? Also, are different programs offered in essentially identical schools in the same district? It is a fact that more state and local tax revenue is generated, per pupil, in the more affluent neighborhoods and also it is possible that students and parents from those areas voice interest in better and more varied school programs. To what extent should the educational system strive merely to maintain the existing differences or instead attempt to reduce differences?

Another possible cause of difference in educational quality among schools in a district is the natural tendency for new teachers to be first employed at the less desirable schools (from the teachers' point of view) and later transfer to the more desirable schools when they are better trained and experienced. Also in local areas with expanding populations, the need for new school structures most likely arises in the new or expanded areas while the older areas continue using the old structures. Moreover, the socio-economic backgrounds of students may differ among schools in the same district. Several questions can be asked. Do schools in the same district differ in the percentage of teachers with few years of experience? Do average teacher salaries differ among schools in the same district? If yes answers are found to these questions, one could question whether the quality of service is uniform among essentially identical schools in a district.

### Conclusion

It obviously would be difficult to design all aspects of school programs to achieve statewide uniformity among pupils at the total service level, and there are legitimate arguments pro and con as to the desirability of providing identical services. But questions need to be asked regarding the types and degrees of differences in educational services, not only among districts but also among schools in a particular district and even among pupils in a particular school. Insofar as differences are found to exist, legitimate questions can be raised as to reasons, justifications, and prospects for correction and to link the answers to the funding programs, where appropriate.

#### Note

[1]For studies on Kentucky educational finance, see: Don M. Soule and Wayne K. Talley, *Toward Equal Educational Opportunity in Kentucky* (Lexington: Office of Business Development and Government Services, University of Kentucky, 1973); Jim Peyton, *Equal Educational Opportunity in Kentucky* (Frankfort: Legislative Research Commission, Research Report No. 105, October 1973); *Equitable Financing of Public Schools* (A Report to the Kentucky State Superintendent for Public Instruction, by Kern Alexander, Principal Consultant, July 1983).

*(continued from page 1)*

from the cyclical lows of 1982 but will not provide a major source of growth once full recovery has been achieved. It is difficult to determine if Kentucky will follow long term national employment trends but the BLS projections are an indication of the likely growth potential of the major sectors for the next decade.

Prospects appear promising for continuing although moderate growth in Kentucky both in the short term and in the long run. The key external factors affecting this growth include the level of interest rates, developments in the export sector and, more generally, the strength and duration of national economic recovery. Internally, the state's growth potential will depend upon the state's ability to retain existing and attract new industry and to provide conditions conducive to the expansion of the services sector.

**TABLE 1**

**PROJECTED U.S. JOB GROWTH, 1982-1995**
**(in thousands)**

| Industry | 1982-95 New jobs | 1982-95 Percent of total |
|---|---|---|
| Total new jobs | 25,248 | 100.0 |
| Goods-producing: | 6,548 | 25.9 |
| Farm | -265 | -1.0 |
| Mining | 122 | .5 |
| Construction | 2,434 | 9.6 |
| Manufacturing | 4,257 | 16.9 |
| Durable | 3,170 | 12.6 |
| Nondurable | 1,087 | 4.3 |
| Service-producing: | 18,700 | 74.1 |
| Transportation, public utilities | 1,094 | 4.3 |
| Trade | 6,009 | 23.8 |
| Finance, insurance, and real estate | 1,786 | 7.1 |
| Services | 8,673 | 34.4 |
| Private households | -289 | -1.1 |
| Government | 1,427 | 5.7 |

*(continued from page 2)*

## KCEA News & Notes

he has been on leave from the University to serve as State Budget Director.

We join in welcoming Dr. Hackbart back to the University and look forward to working with him.

* * *

In early December, 1983, Governor John Y. Brown, Jr. appointed Ronald G. Geary as a member of the Kentucky Council of Economic Advisors to replace John B. Clarke, whose term had expired. Mr. Geary will serve for a term expiring in January, 1987.

Ronald Geary is an alumnus of both the University of Kentucky and the University of Louisville, having received the B.S. in Accounting in 1969 from the University of Kentucky and his law degree from the University of Lousiville in 1974. Mr. Geary is currently a partner in the law firm of Barnett and Alagia, Lousiville; prior to this he was Secretary of the Kentucky Revenue Cabinet. He is also serving a term on the University of Kentucky Board of Trustees.

As we welcome Mr. Geary to membership on the KCEA, we also extend our appreciation to Mr. Clarke for the support he has given to the work of the KCEA during his tenure.

* * *

The offices of the staff of the KCEA (the Center for Applied Economic Research, College of Business and Economics, University of Kentucky) moved in mid-November, 1983, from the Commerce Building to the Mathews Building next door. All telephone numbers remain the same. The new mailing address for the KCEA is:

302 Mathews Building
Lexington, Kentucky 40506-0047

All readers of this column are cordially invited to visit us in our new offices during the regular University business hours.

* * *

The Center for Applied Economic Research (CAER), together with the Government Publications Department of M. I. King Library and the Office of Continuing Education of the College of Library and Information Science, University of Kentucky, is sponsoring a day and a half workshop on "Using Federal Government Statistics," January 27 and 28, 1984. Representatives of three federal statistical agencies, the Bureau of the Census, the Bureau of Labor Statistics, and the National Center for Health Statistics, will give presentations and demonstrations, as will Vernon Smith of the State Data Center (Urban Studies Center, University of Louisville) and Margaret O. Adams and Frances E. Ross of the KCEA/CAER.

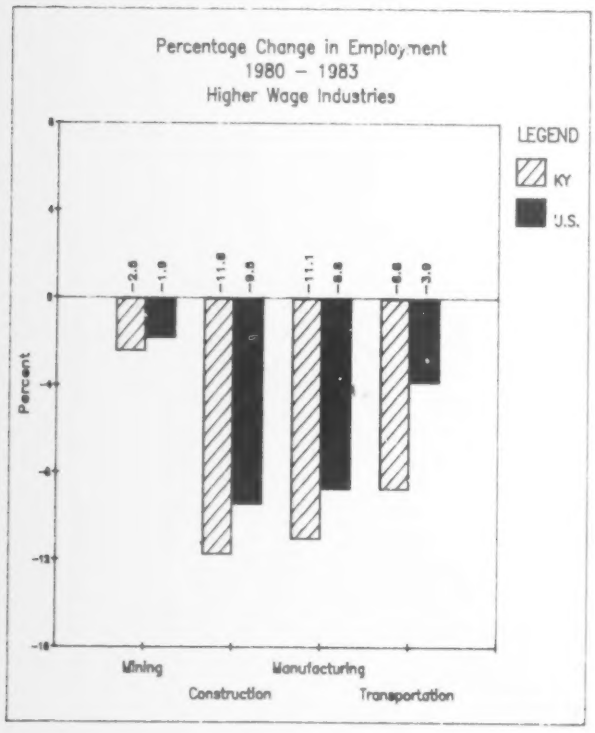
—moa—

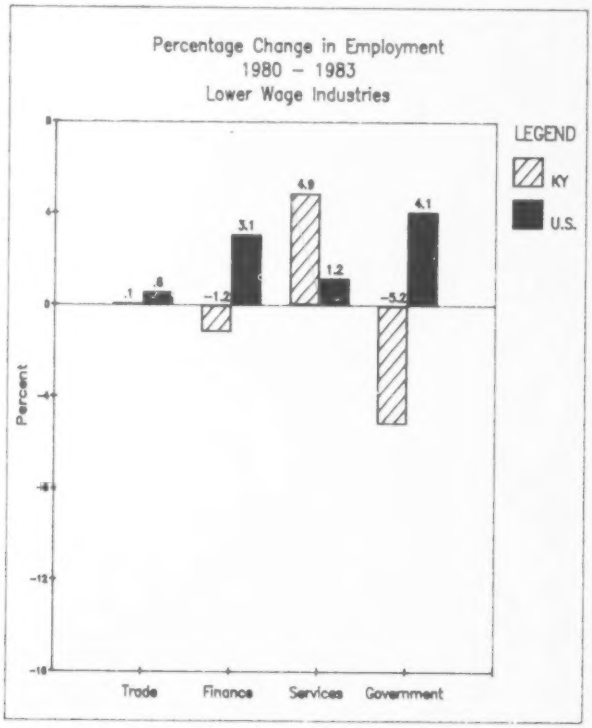
### Income Implications of Interindustry Employment Changes

Major changes in employment among industries can have important effects on levels of average income because wage levels differ among industries. Using 1980 data, four Kentucky industry groups had average annual earnings above the state average (mining, 168 percent of the state average; transportation-communications-public utilities, 141 percent; construction, 119 percent; and manufacturing, 119 percent) and four industry groups were below the state average (finance-insurance-real estate, 95 percent of the state average; government, 87 percent; trade, 72 percent; and services, 71 percent). If, for example, a reduction in manufacturing employment was exactly offset by an increase in services employment, the average annual earnings for Kentucky's total nonagricultural wage and salary workers would fall.

Comparing 1980 with 1970, Kentucky wage and salary employment increased 18 percent in the four industry groups with above average wages and 44 percent in the four industry groups with less than average wages. The charts below compare 1983 with 1980 (*annual* amounts for 1983 are estimated from the first 10 months). Kentucky employment appears to have declined almost 10 percent in the four higher wage industries and only 0.3 percent in the four lower wage industries. Similar comparisons using U.S. data show that employment increased 9.7 percent in the four higher wage groups and increased 30.6 percent in the four lower wage groups, between 1970 and 1980. The U.S. changes between 1980 and 1983 were 7.9 percent decline in the four higher wage groups and 2 percent increase in the four lower wage groups. It appears, therefore, that employment shifts toward lower wage industries have been occurring in both Kentucky and the U.S. Employment shifts toward lower wage industries help explain the slow rates of income growth in recent years.

The income-reducing efffects of employment shifts to lower wage industries could be offset by increases in the percentage of population employed. For example, a husband might be forced to shift employment to a lower wage job, tending to reduce the family's income. But if other family members become employed, even at low wage jobs, the family's total income would tend to increase. In the period 1970-80, labor force participation rates (percentage of population age 16 and older in the labor force) increased from 54.9 to 61.2 percent in Kentucky and from 60.4 to 63.8 percent in the U.S. The income increasing effects of higher participation rates probably were too small to offset the income reducing effects of the employment shifts toward lower wage industries.

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